



06 - STRUCTURAL SUBSET

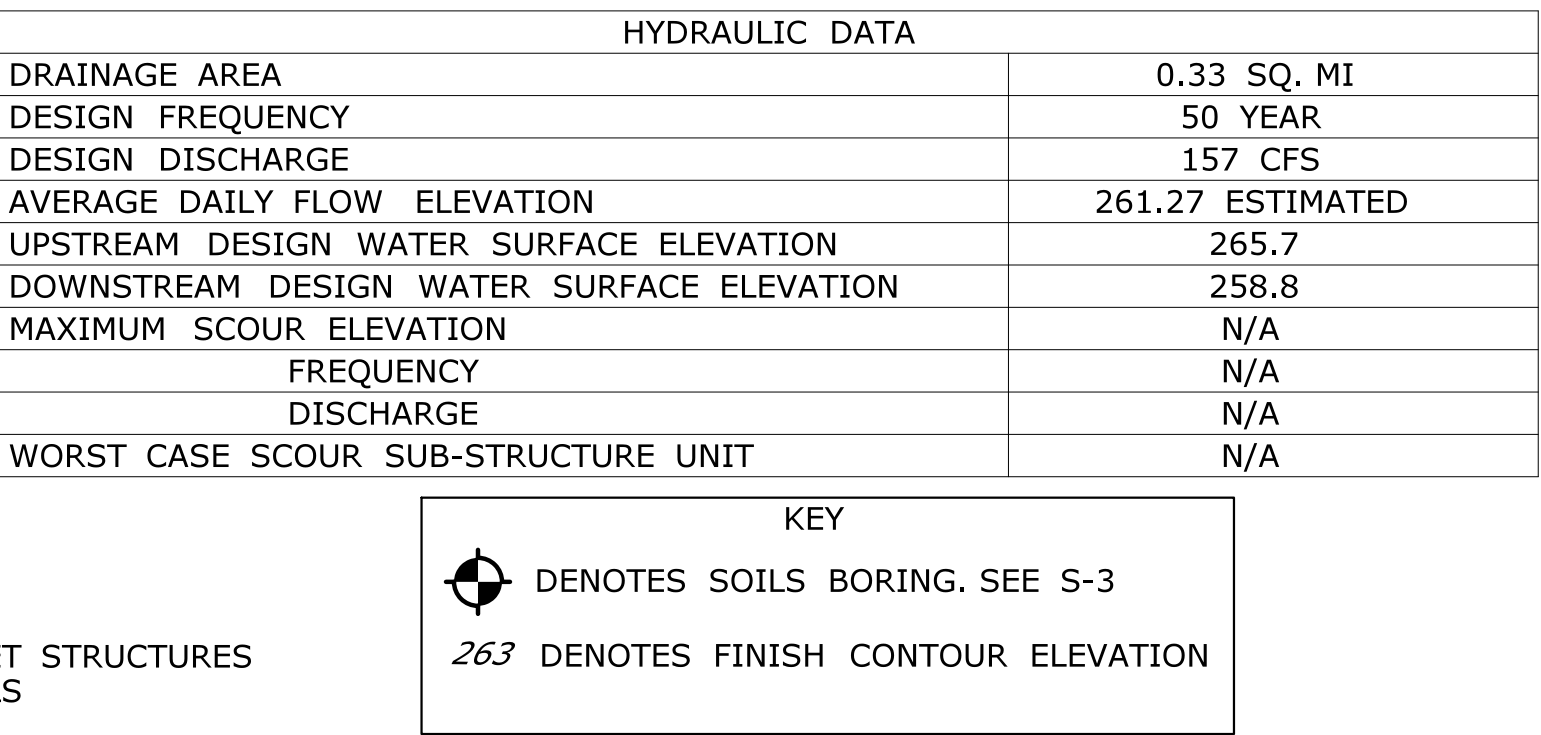
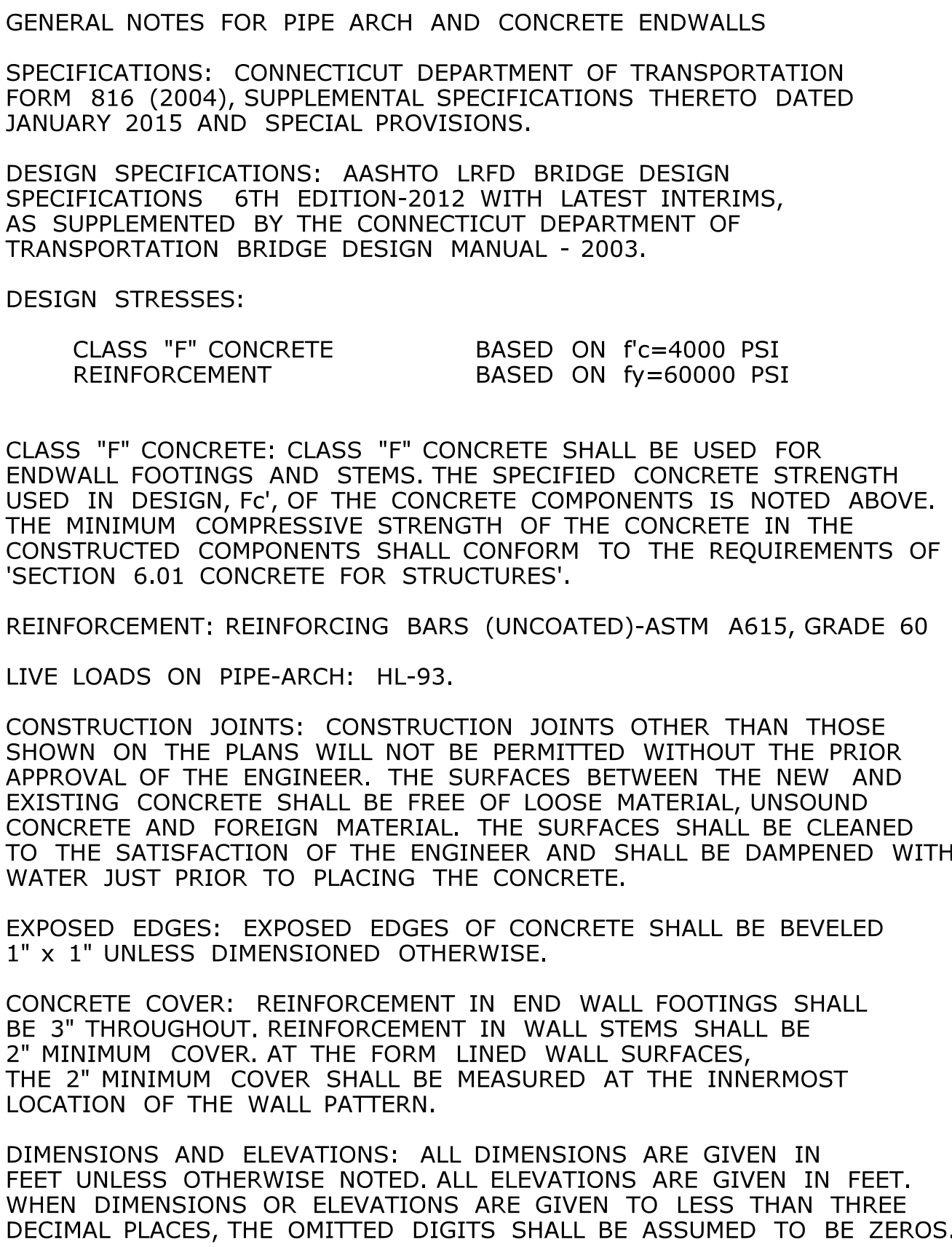
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THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.



TRANSPORTATION PRINCIPAL ENGINEER

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: JJK	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	PROJECT NO. 51-260
					CHECKED BY: RDD						DRAWING NO. S-1
					SCALE AS NOTED					SHEET NO. 06.01	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.		Plotted Date: 7/9/2015				Filename: ...\\Index of Drawings.dgn		



THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE). THE FREQUENCY OF INSPECTION OF THESE STRUCTURES SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE

COMPONENT OR DETAIL	BRIDGE SHEET REFERENCE
Follow normal inspection procedure	_____

			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: RDH CHECKED BY: RDD SCALE AS NOTED	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\Culvert_General_Plan.dgn	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON DRAWING TITLE: GENERAL PLAN STEEL PIPE ARCH	PROJECT NO. 51-260 DRAWING NO. S-2 SHEET NO. 06.02
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/17/2015						

Infiller: M. McDonough		Connecticut DOT Boring Report					Hole No.: D-1-1					
Inspector: B. Omondouh		Town: Farmington		Stat. Offset: 53+36/37# RT								
Engineer: B. McKiernan		Project No.: 51-260		Nothing: 825279								
Start Date: 12-19-06		Route No.: 4		Easting: 980990								
Finish Date: 12-19-06		Bridge No.:		Surface Elevation: 264.9								
Project Description: Reconstruction of Route 4												
Casing Size/Type: 4in HW		Sampler Type/Size: 2in SS		Core Barrel Type: NX								
Hammer Wt.: 300lbs		Fall: 24in.		Hammer Wt.: 140lbs								
Fall: 30in.												
Groundwater Observations: @4 after 0 hours												
SAMPLES												
Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches			Pen. (in.)	Rec. (in.)	RQD %	Casing Boring Log	Generalized Soil Description	Material Description and Notes	Elevation (ft)	
0	S-1	2	2	3	3	24	11	7	TOPSOIL	Top 6" Topsoil	260	
								6	MISC. FILL	Bottom 5" Red-Brown C-F SAND and SILT, tr. r Gravel		
								6				
								7				
								18				
5	S-2	4	8	15	21	24	7	48	GLACIAL TILL	Gray C-F GRAVEL and C-F SAND, little SILT	255	
								54				
								48				
10	S-3	19	76			12	6	62		Red-Brown C-F GRAVEL and C-F SAND, little SILT	250	
15									WEATHERED BEDROCK	Red-Brown medium grained medium bedded highly fractured moderately weathered and strong ARKOSE. Core times (min): 5, 5, 5, 7, 8	245	
20	C-1					60	54	28				
25										Red-Brown medium grained medium bedded highly fractured slightly weathered and strong ARKOSE. Core times (min): 6, 7, 8, 6, 6	240	
30	C-2					60	60	50				
35										END OF BORING 25ft	235	
40												
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%												
Total Penetration in		NOTES: Possible bedrock encountered at 13.5.'										Sheet 1 of 1
Earth: 13.5ft Rock: 11.5ft												
No. of Soil Samples: 3 No. of Core Runs: 2												
												SM-001-M REV. 102

BORING D-1-1

Driller: J. Doner		Connecticut DOT Boring Report				Hole No.: D-1-2		
Inspector: B. Olmstead		Town: Farmington				Stat Offset: 53+18.37ft LT		
Engineer: B. McKernan		Project No.: 51-260				Northing: 825355		
Start Date: 2-5-07		Bridge No.: 4				Easting: 980987		
Finish Date: 2-5-07		Bridge No.:				Surface Elevation: 262.2		
Project Description: Reconstruction of Route 4								
Casing Size/Type: 4in HW		Sampler Type/Size: 2in SS				Core Barrel Type: NX		
Hammer Wt.: Fall in.		Hammer Wt.: 140lbs Fall: 30in.						
Groundwater Observations: @4.9 after 12 hours								
SAMPLES								
Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	ROD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0						TOPSOIL	8" Topsoil	
						MISC. FILL		-260
5	S-1	9 4 7 4	24	10			Red Brown C-F SAND, some f-c Gravel, little Silt	-255
10	S-2	3 12 32 41	24	7		GLACIAL TILL	Red Brown C-F SAND, some f-c Gravel, little Silt	-250
15	C-1		54	24	0	WEATHERED BEDROCK	Red-Brown medium grained medium bedded intensely fractured moderately weathered and strong ARKOSE.	-245
20							END OF BORING 16.5ft	-240
25								-235
30								-230
35								-225
40								
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%								
Total Penetration in			NOTES: Multiple mechanical breakdowns during drilling and coring. No core times taken. Cored large cobbles from 9'-10'.					Sheet 1 of 1
Earth: 12ft	Rock: 4.5ft							
No. of Soil Samples: 2	No. of Core Runs: 1							SM-001-M REV. 1/02

BORING D-1-2

Driller: M. McDonough		Connecticut DOT Boring Report				Hole No.: RW-101-1								
Inspector: B. Olmstead		Town: Farmington		Stat Offset: 53+59/18ft RT										
Engineer: B. McKiernan		Project No.: 51-260		Nothing: 825292										
Start Date: 12-14-06		Route No.: 4		Easting: 981016										
Finish Date: 12-14-06		Bridge No.:		Surface Elevation: 267.5										
Project Description: Reconstruction of Route 4														
Casing Size/Type: 4in HW			Sampler Type/Size: 2in SS			Core Barrel Type:								
Hammer Wt.: 300lbs Fall: 24in.			Hammer Wt.: 140lbs Fall: 30in.											
Groundwater Observations:														
Depth (ft)	SAMPLES						Material Description and Notes	Elevation (ft)						
	Sample Type/No.	Blows on Sampler per 6 inches				Pen. (in.)			Rec. (in.)	ROD %	Casing Blows per 12"	Generalized Soil Description		
0														
	S-1	11	13	10	10	24	3							
5	S-2	3	3	3	3	24	0							
	S-3	3	6	8	24	24	0							
10														
15														
20														
25														
30														
35														
40														
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%														
Total Penetration in Earth: 9.5ft		NOTES: Boring terminated at 9.5' due to high traffic volumes.												Sheet 1 of 1
No. of Soil Samples: 3		No. of Core Runs: ---												SM-001-M REV. 1/02

BORING RW-101-1

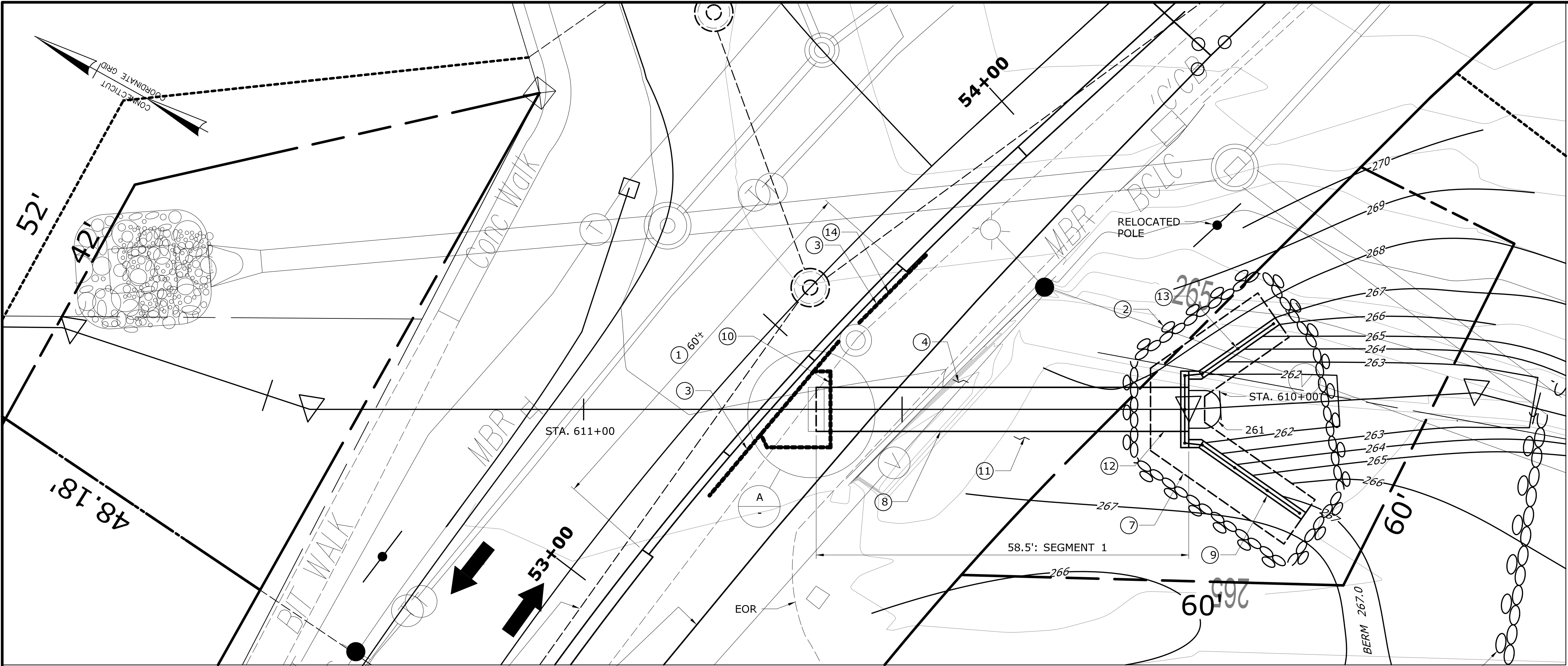
Driller:	M. McDonough	Connecticut DOT Boring Report	Hole No.:	R-4-1				
Inspector:	B. Olmstead	Town: FARMINGTON	Stat./Offset:					
Engineer:	B. Olmstead	Project No.:0051-0260	Northing:	825344				
Start Date:	12/12/2006	Route No.: 4	Easting:	979781				
Finish Date:	12/12/2006	Bridge No.:	Surface Elevation:	223.0				
Project Description: Reconstruction of Route 4								
Casing Size/Type:4.25" HSA			Sampler Type/Size:SS 1.375 in					
Hammer Wt.: Fall:			Hammer Wt.:140 lbs Fall: 30 in					
Groundwater Observations @DRY after 0			hours, @	after hours, @ after hours				
SAMPLES								
Depth (ft)	Sample Type/No.	Blows on Sampler per 6 inches	Pen. (in.)	Rec. (in.)	ROD %	Generalized Strata Description	Material Description and Notes	Elevation (ft)
0	S-1	1 1 2 8	24	11		TOPSOIL	TOPSOIL	
						SAND		220
5	S-2	12 11 11 13	24	14			Yellow-Brown C-F SAND, tr Silt, tr f-c Gravel	215
10	S-3	14 12 17 38	24	13			Yellow-Brown C-F SAND, tr Silt	
							Bottom of Boring	
Sample Type: S=Split Spoon C=Core UP= Undisturbed Piston V= Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%								
Total Penetration in Earth: 12 Rock:			NOTES:				Sheet 1 of 1	
No. of Samples: 3							SM-001-M REV. 1/02	

BORING R-4-1

Driller: M. McDonough		Connecticut DOT Boring Report					Hole No.: R-ACC-4		
Inspector: B. Olmstead		Town: Farmington					Stat./Offset:		
Engineer: B. McKiernan		Project No.: 51-260					Northing: 825314		
Start Date: 12-12-06		Route No.: 4					Easting: 979943		
Finish Date: 12-12-06		Bridge No.:					Surface Elevation: 225.2		
Project Description: Reconstruction of Route 4									
Casing Size/Type: 4.25in HSA			Sampler Type/Size: 2in SS			Core Barrel Type:			
Hammer Wt.: Fall: in.			Hammer Wt.: 140lbs Fall: 30in.						
Groundwater Observations: @DRY after 0 hours									
Depth (ft)	SAMPLES						Generalized Strata Description	Material Description and Notes	Elevation (ft)
	Sample Type/No.	Blows on Sampler per 6 inches			Pen. (in.)	Rec. (in.)			
0							TOPSOIL		225
	S-1	3	7	5	4	24	8	TOPSOIL	
5	S-2	6	13	15	18	24	8	Red-Brown C-F SAND, some Silt, some m-f Gravel	220
10	S-3	50				1	1	SAND	Red-Brown F-C SAND, some Silt, tr. Wood, tr. Gravel
	S-4	16	18	96		18	7		Red-Brown F-C SAND, little Silt, tr. f Gravel
15								END OF BORING 11.5ft	215
									210
20									205
									200
25									195
30									190
35									
40									
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%									
Total Penetration in		NOTES:							
Earth: 11.5ft Rock: 0ft									
No. of Soil Samples: 4		No. of Core Runs: ---							
		Sheet 1 of 1							
		SM-001-M REV. 1/02							

BORING R-ACC-4

[illegible]



NOTE: SEE HIGHWAY SHEETS FOR CONSTRUCTION DONE DURING STAGE 1

SUGGESTED CONSTRUCTION SEQUENCE

1. INSTALL 60' OF TEMPORARY PRECAST CONCRETE BARRIER CURB (STRUCTURE) 15" X 32" (ANCHORED TO BITUMINOUS CONCRETE WITH THREADED RODS BY MEANS OF CHEMICAL ANCHOR MATERIAL)
NOTE THAT THE LOCATION OF THE LOOP BARS CAST INSIDE THESE STRUCTURE HALF BARRIERS (REQUIRED FOR THE CONNECTION TO ADJACENT TEMPORARY BARRIER) SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE NOTE ON S-34.
2. INSTALL "COFFERDAM AND DEWATERING" AROUND INLET STRUCTURES
3. INSTALL TEMPORARY EARTH RETAINING SYSTEM (TERS)
4. EXCAVATE FOR PLACEMENT OF PIPE ARCH. PAID FOR UNDER ITEM "STRUCTURE EXCAVATION-EARTH (COMPLETE)". SEE PIPE TRENCH DETAIL ON S-11.
5. EXCAVATE FOR INLET FOOTING. PAID FOR UNDER ITEM "STRUCTURE EXCAVATION-EARTH (EXCLUDING COFFERDAM AND DEWATERING)"
6. PLACE GRANULAR FILL AT BOTTOM OF EXCAVATED AREAS.
7. CONSTRUCT INLET FOOTING
8. PLACE PIPE-ARCH.
9. CONSTRUCT REMAINING INLET STRUCTURES
10. INSTALL TEMPORARY BULKHEAD AND ADDITIONAL TERS AROUND PIPE-ARCH.
HEIGHT OF TEMPORARY BULKHEAD SHALL EXTEND TO BOTTOM OF ROADWAY SUBBASE OR AS ORDERED. PAID FOR UNDER TERS THE OPEN END OF THE PIPE-ARCH SHALL BE INTERNALLY BRACED AS REQUIRED TO PREVENT DEFORMATIONS. SEE SPECIAL PROVISION FOR 81" X 59" CORRUGATED STEEL PIPE-ARCH, ALUMINIZED TYPE 2 (10 GAUGE). TYPICAL AT ARCH-PIPE JOINT LOCATIONS.
11. BACKFILL AROUND PIPE-ARCH WITH "BEDDING MATERIAL" SEE PIPE TRENCH DETAILS ON S-11
12. INSTALL CONTROLLED LOW STRENGTH MATERIAL UNDER PIPE-ARCH NEAR ENDWALL
13. INSTALL DECORATIVE FENCE ONTO INLET STRUCTURES
14. REMOVE TERS WHEREVER POSSIBLE. LEAVE IN AT STAGE JOINT WITH NEXT PIPE-ARCH SEGMENT

CONSTRUCTION SEQUENCE (PLAN)

SCALE: 1" = 10'

COFFERDAM INSTALLED IN STAGE 1
PAID FOR UNDER "HANDLING WATER"
(RDWAY ITEM)

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	0.6 CFS
AVERAGE SPRING FLOW	1.2 CFS
2-YEAR FREQUENCY DISCHARGE	66 CFS
TEMPORARY DESIGN DISCHARGE	66 CFS
TEMPORARY DESIGN FREQUENCY	2 YEAR EVENT
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	267.44
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	256.75

"TEMPORARY EARTH RETAINING SYSTEM" (TERS).
NOTE: VERTICAL PAY LIMITS OF TERS SHALL BE FROM BOTTOM OF EXCAVATION TO THE TOP OF THE RETAINED MATERIAL

TEMPORARY BULKHEAD AROUND PIPE-ARCH
(TO SUPPORT THE BEDDING MATERIAL DURING THE BACKFILL OPERATIONS)

NOTES

TEMPORARY BULKHEADS SHALL BE PAID FOR UNDER ITEM TEMPORARY EARTH RETAINING SYSTEM (TERS)

ALL JOINTS IN THE PIPE-ARCH SHALL HAVE COUPLINGS AS INDICATED IN DETAIL "A" OR AS APPROVED BY THE ENGINEER

END OF SEGMENT 1 PIPE-ARCH
BAND ANGLES WITH BOLTS PER MANUFACTURER
END OF COUPLING BAND

ALUMINIZED STEEL COUPLING BAND (24" MIN.) WITH 1" NEOPRENE GASKET

DISTANCE AS REQUIRED TO INSTALL COUPLING BAND ON THE PIPE-ARCH SEGMENT

DETAIL "A"

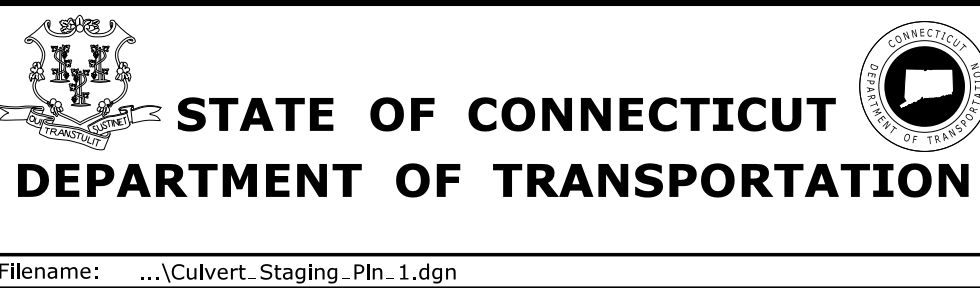
SCALE: 1/4" = 1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 7/10/2015

DESIGNER/DRAFTER:
RDH
CHECKED BY:
RDD
SCALE AS NOTED

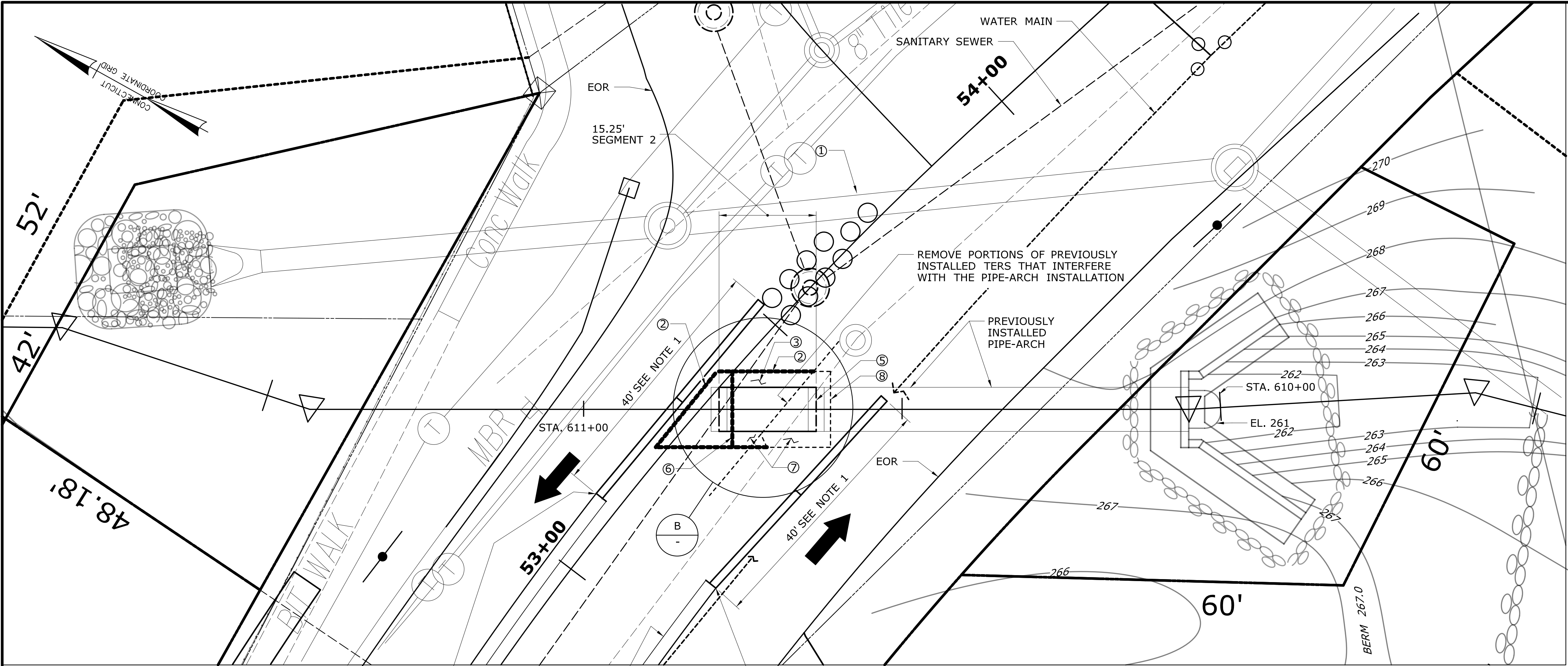


SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:
[Signature]

PROJECT TITLE:
**SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.**

TOWN:
FARMINGTON
DRAWING TITLE:
**CULVERT INSTALLATION
DURING STAGE 2**

PROJECT NO.
51-260
DRAWING NO.
S-4
SHEET NO.
06.04



SUGGESTED CONSTRUCTION SEQUENCE

1. INSTALL 40' OF "TEMPORARY PRECAST CONCRETE BARRIER CURB (STRUCTURE) 15" X 32" " (EAST BOUND), AND RELOCATE 40' TEMPORARY PRECAST CONCRETE HALF-SECTION BARRIER CURB (STRUCTURE) (WEST BOUND). PLACE RELOCATED TEMPORARY IMPACT ATTENUATION SYSTEM (TYPE A).
2. INSTALL TEMPORARY EARTH RETAINING SYSTEM (TERS)
3. EXCAVATE FOR PLACEMENT OF PIPE ARCH.
4. PLACE GRANULAR FILL AT BOTTOM OF EXCAVATED AREA
5. PLACE SEGMENT 2 OF PIPE-ARCH AND CONNECT IT TO SEGMENT 1
6. INSTALL TEMPORARY BULKHEAD AROUND PIPE-ARCH. HEIGHT OF TEMPORARY BULKHEAD SHALL EXTEND TO BOTTOM OF ROADWAY SUBBASE OR AS ORDERED. PAID FOR UNDER TERS
7. BACKFILL AROUND PIPE-ARCH WITH "BEDDING MATERIAL" TO BOTTOM OF ROADWAY SUBBASE
8. REMOVE BULKHEAD BETWEEN SEGMENTS 1 & 2
9. REMOVE TERS WHEREVER POSSIBLE. LEAVE IN AT STAGE JOINT WITH NEXT PIPE-ARCH SEGMENT

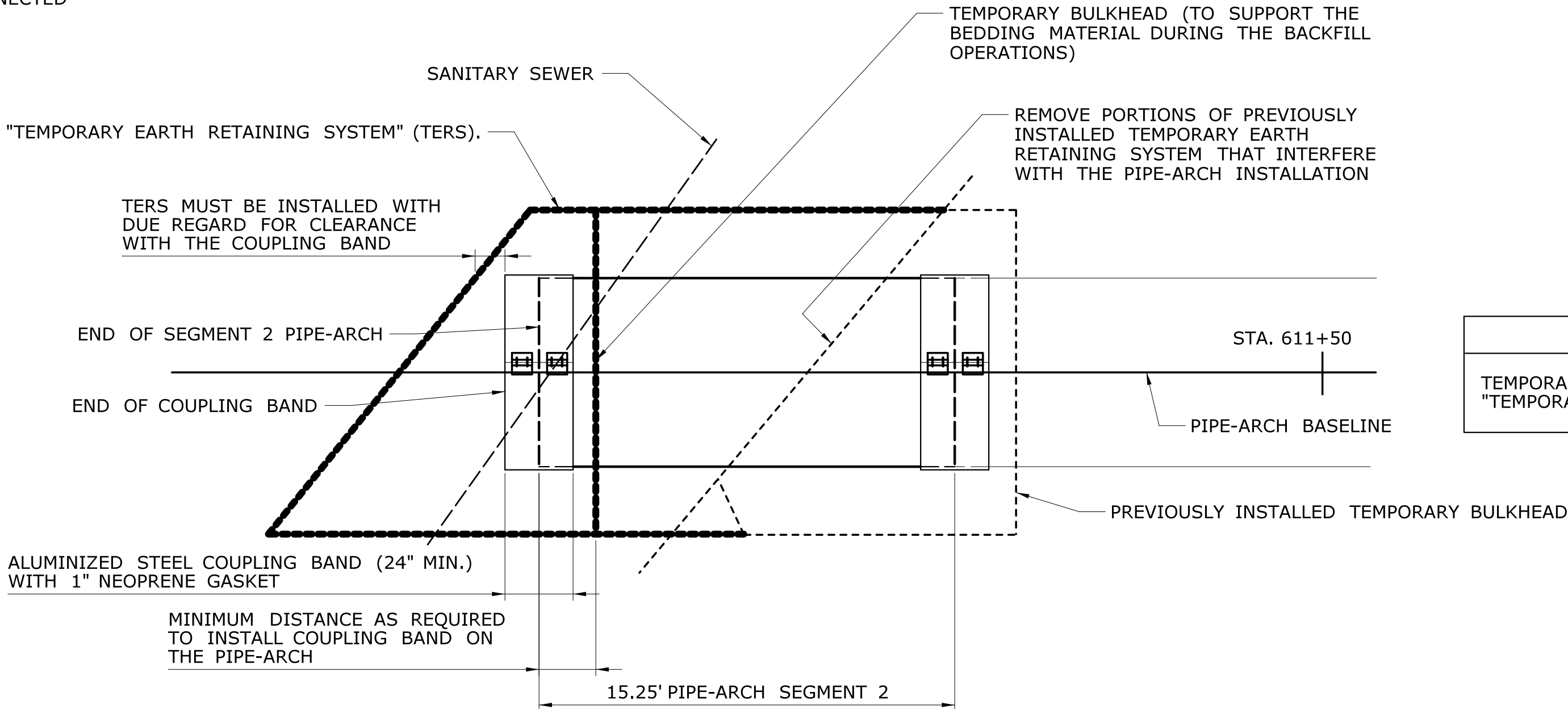
TPCBC (RDWAY ITEM). CONTRACTOR SHALL INSURE THAT THE LOOP BARS OF THE TEMPORARY ROADWAY BARRIER WILL NOT CONFLICT WITH THE LOOP BARS OF THE ADJACENT RELOCATED HALF-SECTION BARRIER CURB (STRUCTURE) SO THE STRUCTURE AND ROADWAY BARRIER WILL BE PROPERLY CONNECTED

TPCBC (RDWAY ITEM)

ATTACH TEMPORARY PRECAST CONCRETE BARRIER CURB (STRUCTURE) 15" X 32" TO TEMPORARY PRECAST CONCRETE BARRIER CURB (RDWAY ITEM) (TYP.) SEE LOOP BAR AND CONNECTION ROD DETAILS ON S-34

CONSTRUCTION SEQUENCE (PLAN)

SCALE: 1" = 10'



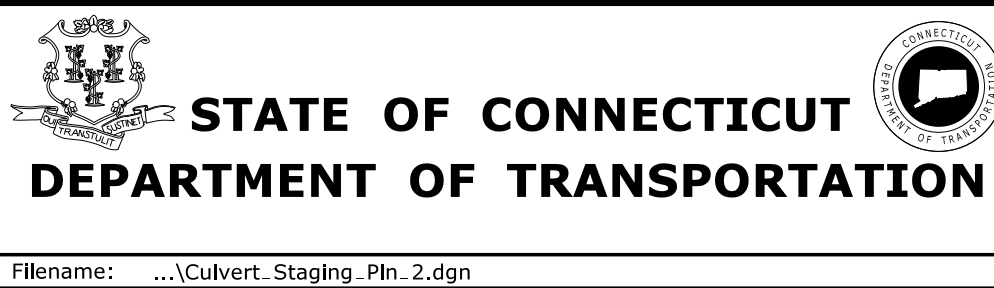
DETAIL "B"

SCALE: 1/4" = 1'-0"

NOTE
TEMPORARY BULKHEADS SHALL BE PAID FOR UNDER ITEM "TEMPORARY EARTH RETAINING SYSTEM" (TERS)

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/10/2015

DESIGNER/DRAFTER:
RDH
CHECKED BY:
RDD
SCALE AS NOTED

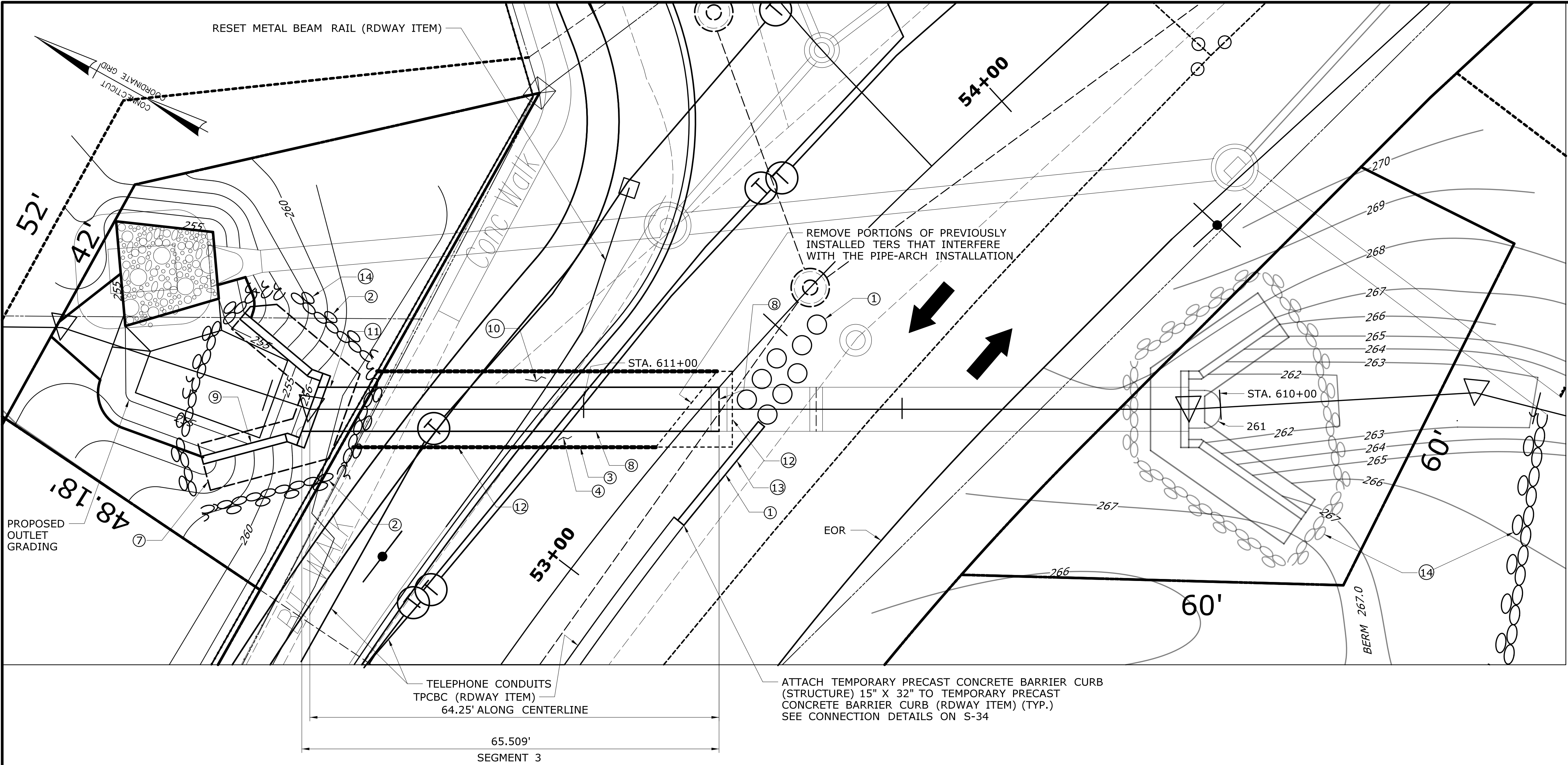


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BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:
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PROJECT TITLE:
**SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.**

TOWN:
FARMINGTON
DRAWING TITLE:
**CULVERT INSTALLATION
DURING STAGE 3**

PROJECT NO.
51-260
DRAWING NO.
S-5
SHEET NO.
06.05



CONSTRUCTION SEQUENCE (PLAN)

SCALE: 1" = 10'

SUGGESTED CONSTRUCTION SEQUENCE


1. RELOCATE 20' OF TEMPORARY PRECAST CONCRETE HALF-SECTION BARRIER CURB (STRUCTURE) AND PLACE RELOCATED TEMPORARY IMPACT ATTENUATION SYSTEM (TYPE A)
2. INSTALL "COFFERDAM AND DEWATERING" AROUND OUTLET STRUCTURES
3. INSTALL TEMPORARY EARTH RETAINING SYSTEM (TERS)
4. EXCAVATE FOR PLACEMENT OF PIPE-ARCH.
5. EXCAVATE FOR OUTLET FOOTING. PAID FOR UNDER ITEMS "STRUCTURE EXCAVATION-EARTH (EXCLUDING COFFERDAM AND DEWATERING)", AND "STRUCTURE EXCAVATION-ROCK (EXCLUDING COFFERDAM AND DEWATERING)"
6. PLACE GRANULAR FILL AT BOTTOM OF EXCAVATED AREAS.
7. CONSTRUCT OUTLET FOOTING
8. PLACE SEGMENT 3 OF PIPE-ARCH AND CONNECT TO SEGMENT 2
9. CONSTRUCT REMAINING OUTLET STRUCTURES
10. BACKFILL AROUND PIPE-ARCH WITH "BEDDING MATERIAL" SEE PIPE TRENCH DETAILS ON S-11
11. INSTALL CONTROLLED LOW STRENGTH MATERIAL UNDER PIPE-ARCH NEAR ENDWALL
12. REMOVE TERS AND BULKHEAD BETWEEN SEGMENTS 2 & 3.
13. REMOVE TEMPORARY STRUCTURE BARRIER (15" X 32") AND RELOCATE TEMPORARY IMPACT ATTENUATION SYSTEM
14. PLACE RIPRAP AND REMOVE COFFERDAMS


REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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DESIGNER/DRAFTER:
RDH
CHECKED BY:
RDD
SCALE AS NOTED

**STATE OF CONNECTICUT**
DEPARTMENT OF TRANSPORTATION



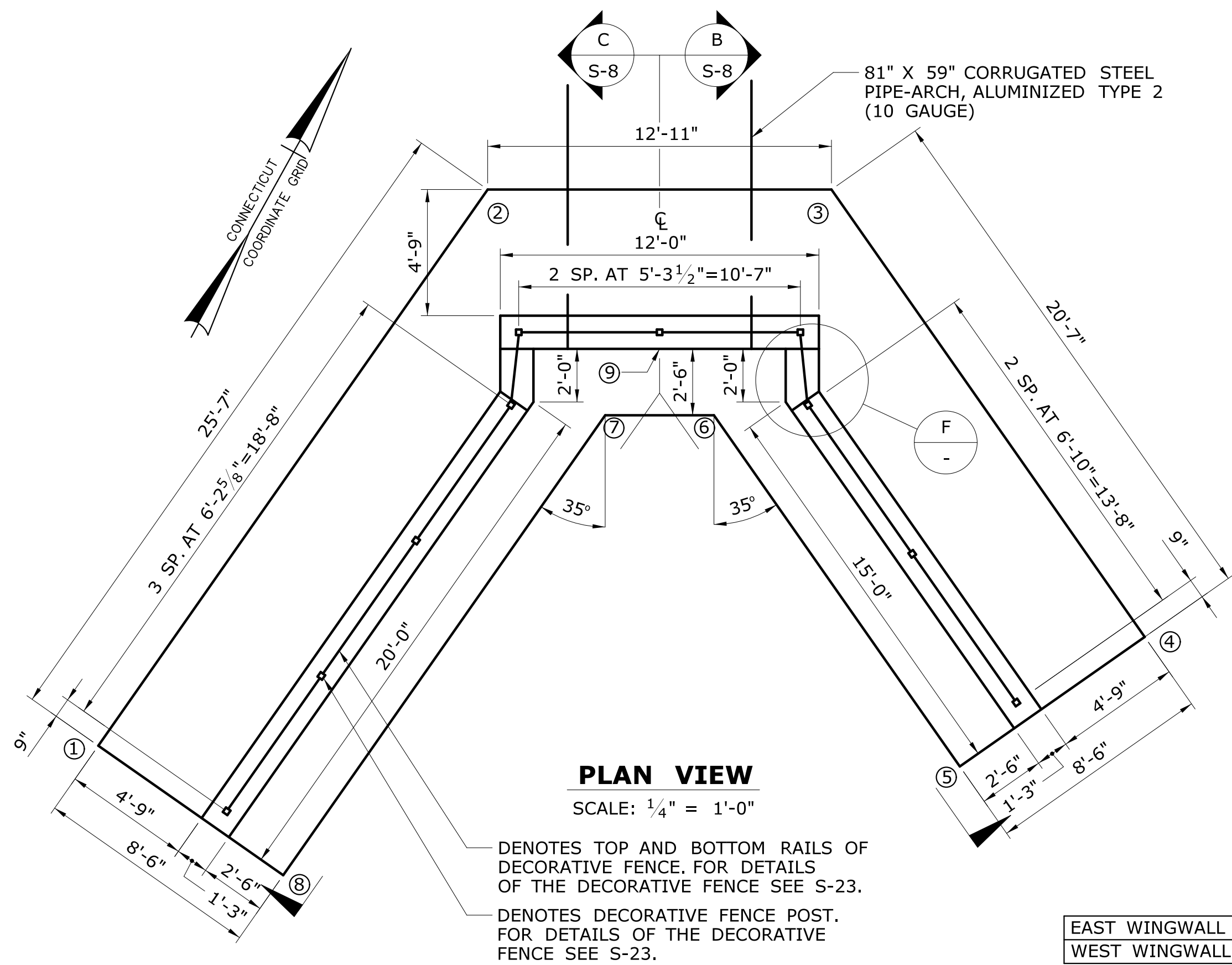
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OFFICE OF ENGINEERING
APPROVED BY:


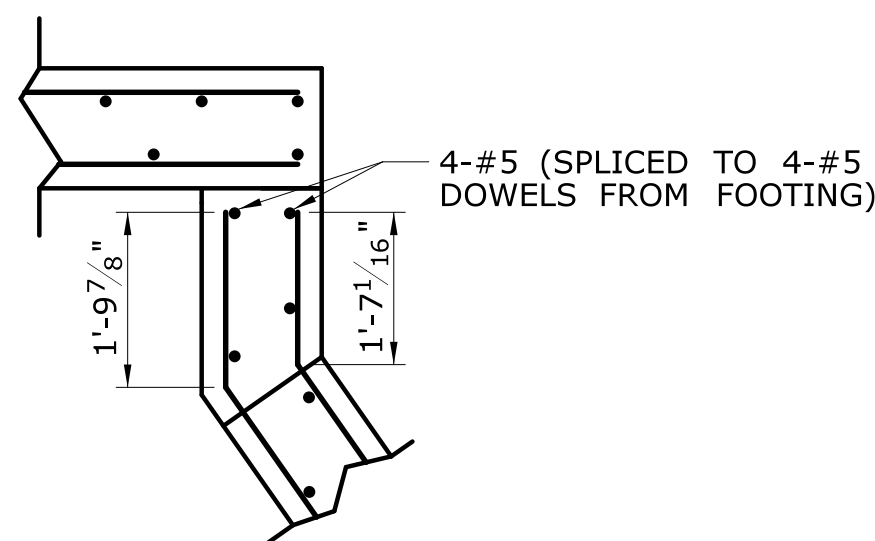
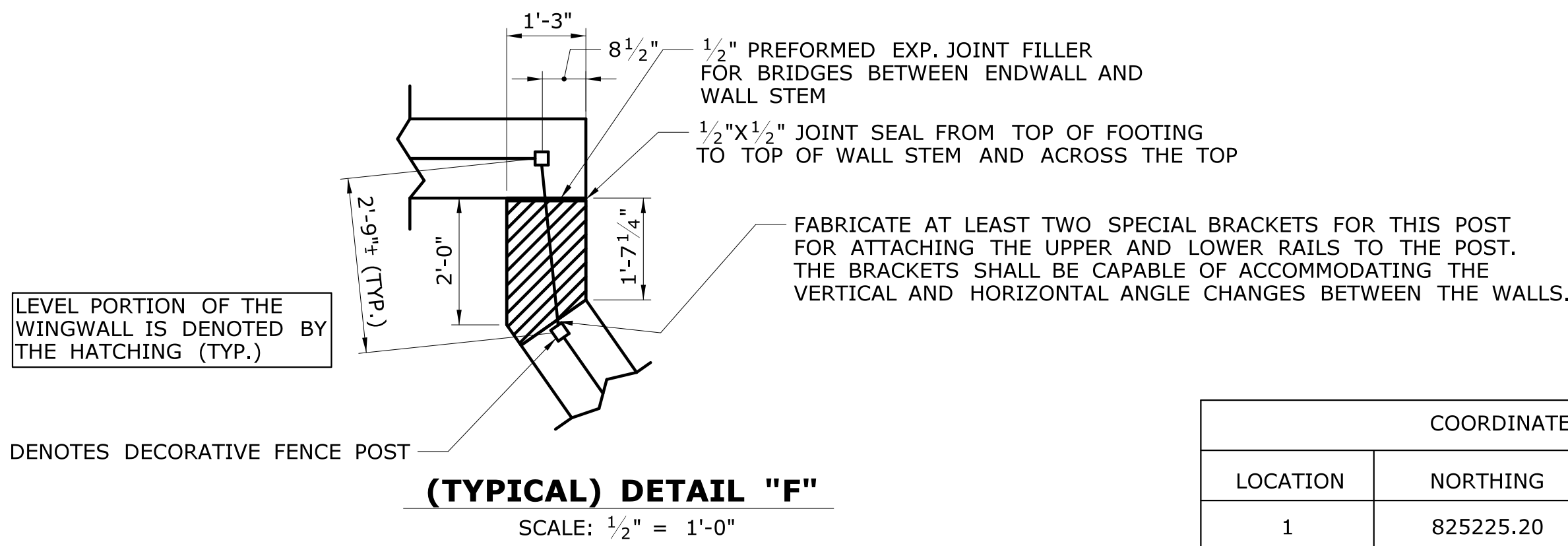
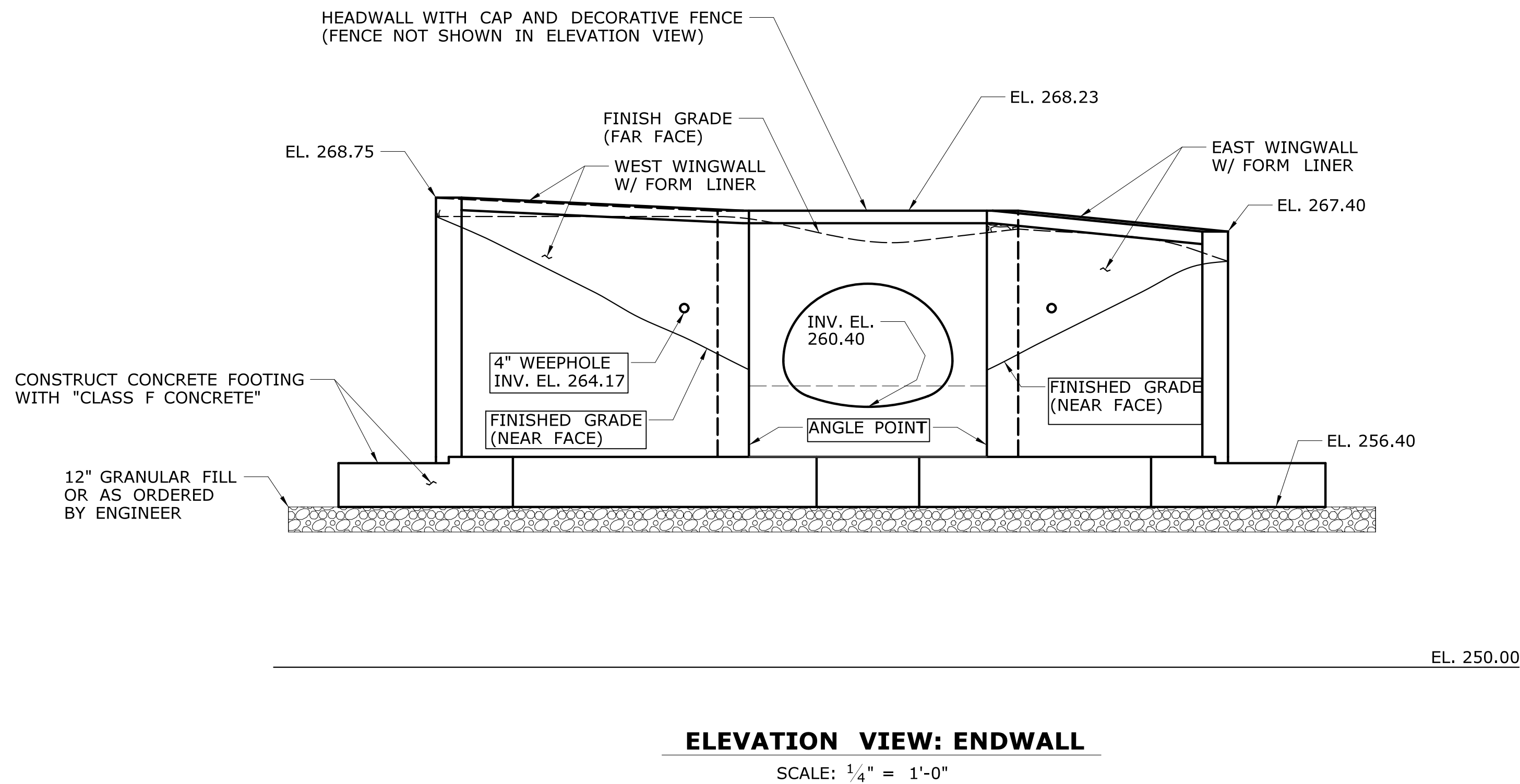
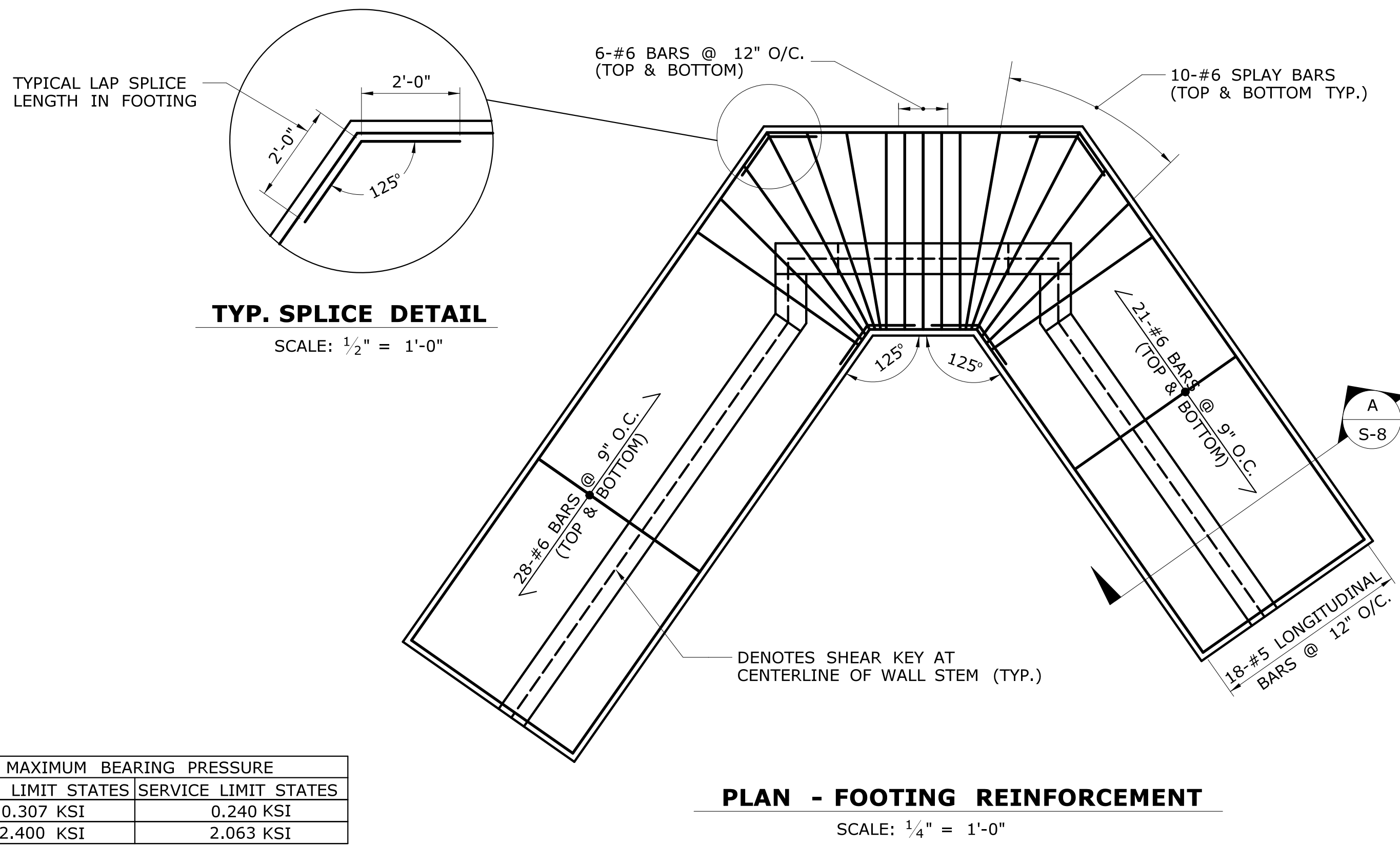
PROJECT TITLE:
SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.

TOWN:
FARMINGTON
DRAWING TITLE:
CULVERT INSTALLATION
DURING STAGE 4

PROJECT NO.
51-260
DRAWING NO.
S-6
SHEET NO.
06.06



	MAXIMUM BEARING PRESSURE	
	STRENGTH LIMIT STATES	SERVICE LIMIT STATES
EAST WINGWALL	0.307 KSI	0.240 KSI
WEST WINGWALL	2.400 KSI	2.063 KSI



DETAIL "F" (REINFORCEMENT)
SCALE: 1/2" = 1'-0"

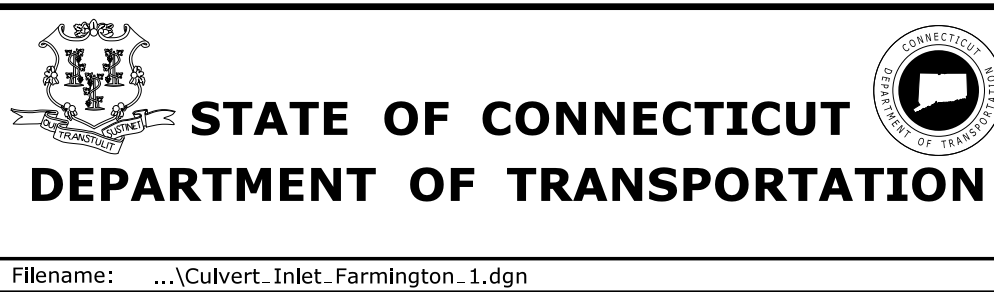
COORDINATES		
LOCATION	NORTHING	EASTING
1	825225.20	981020.36
2	825250.63	981023.05
3	825256.89	981034.38
4	825247.86	981052.85
5	825240.23	981049.13
6	825247.31	981034.62
7	825245.33	981031.04
8	825224.31	981028.82
9	825248.51	981031.62


REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/9/2015

DESIGNER/DRAFTER:
RDH
CHECKED BY:
RDD
SCALE AS NOTED

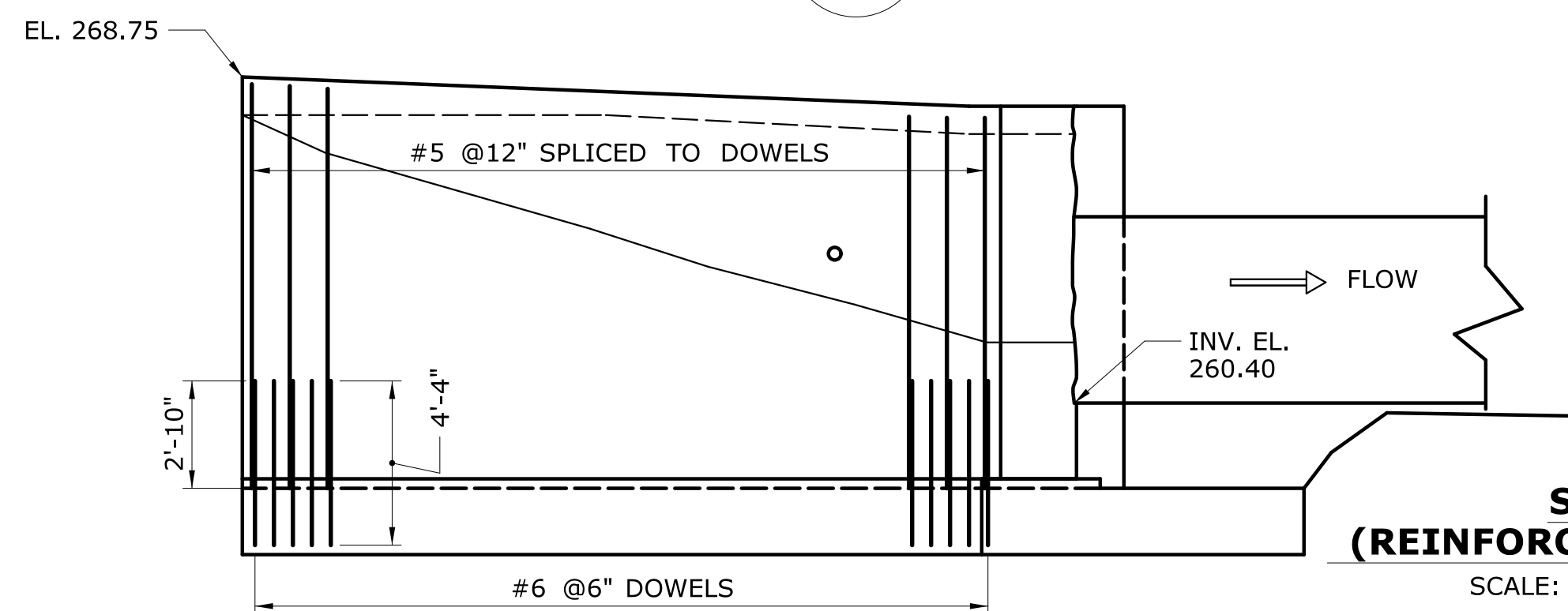
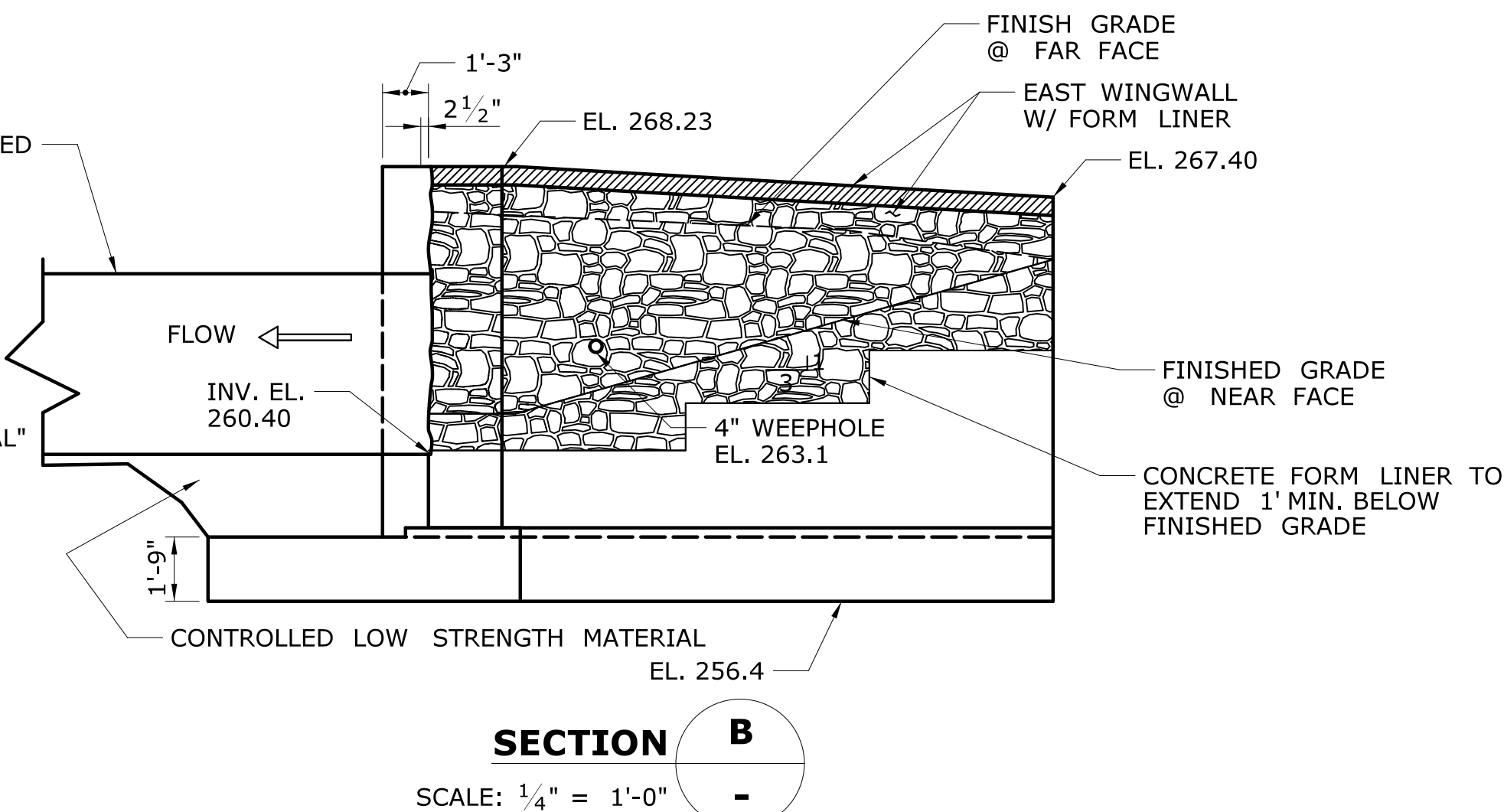
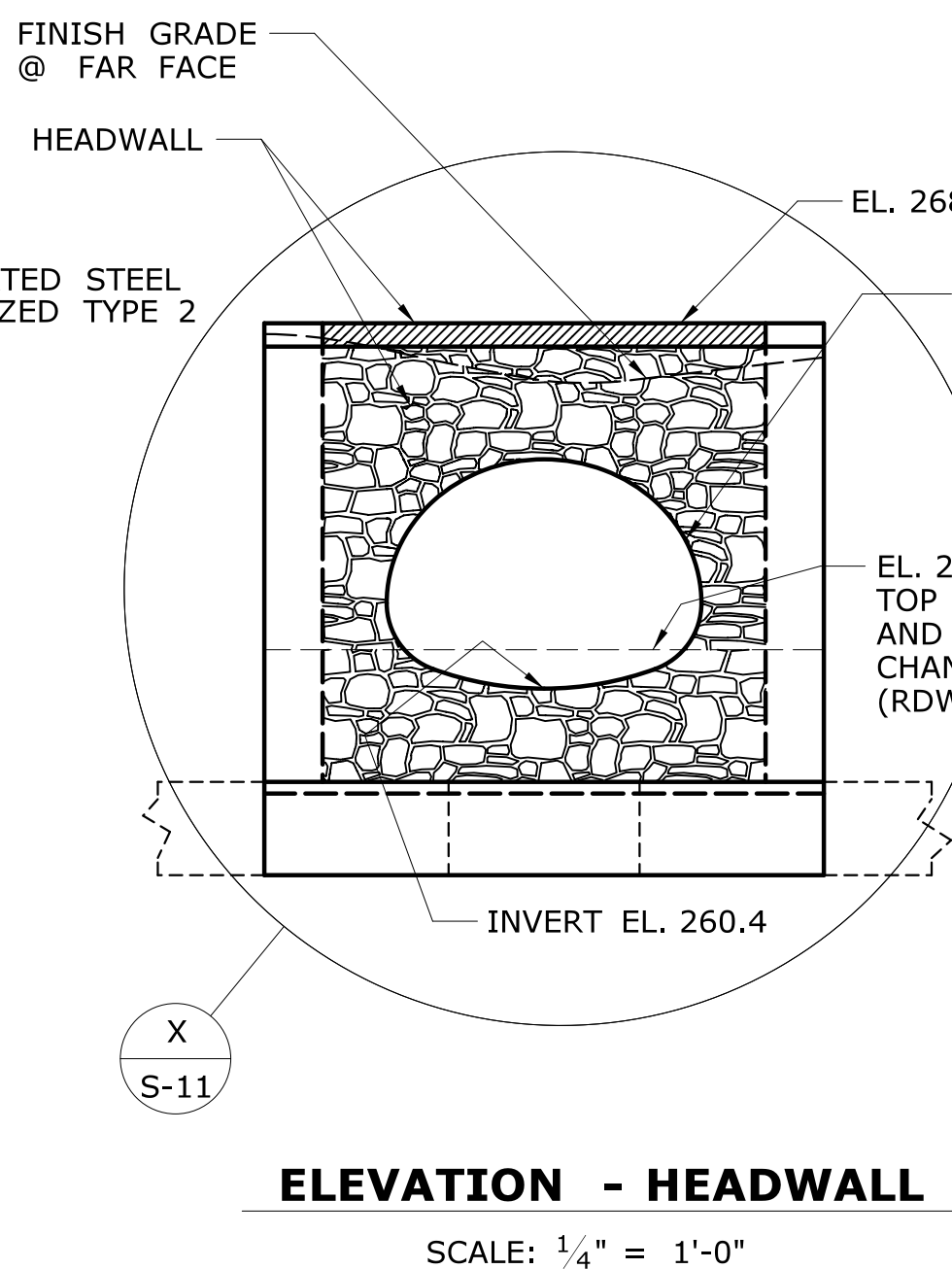
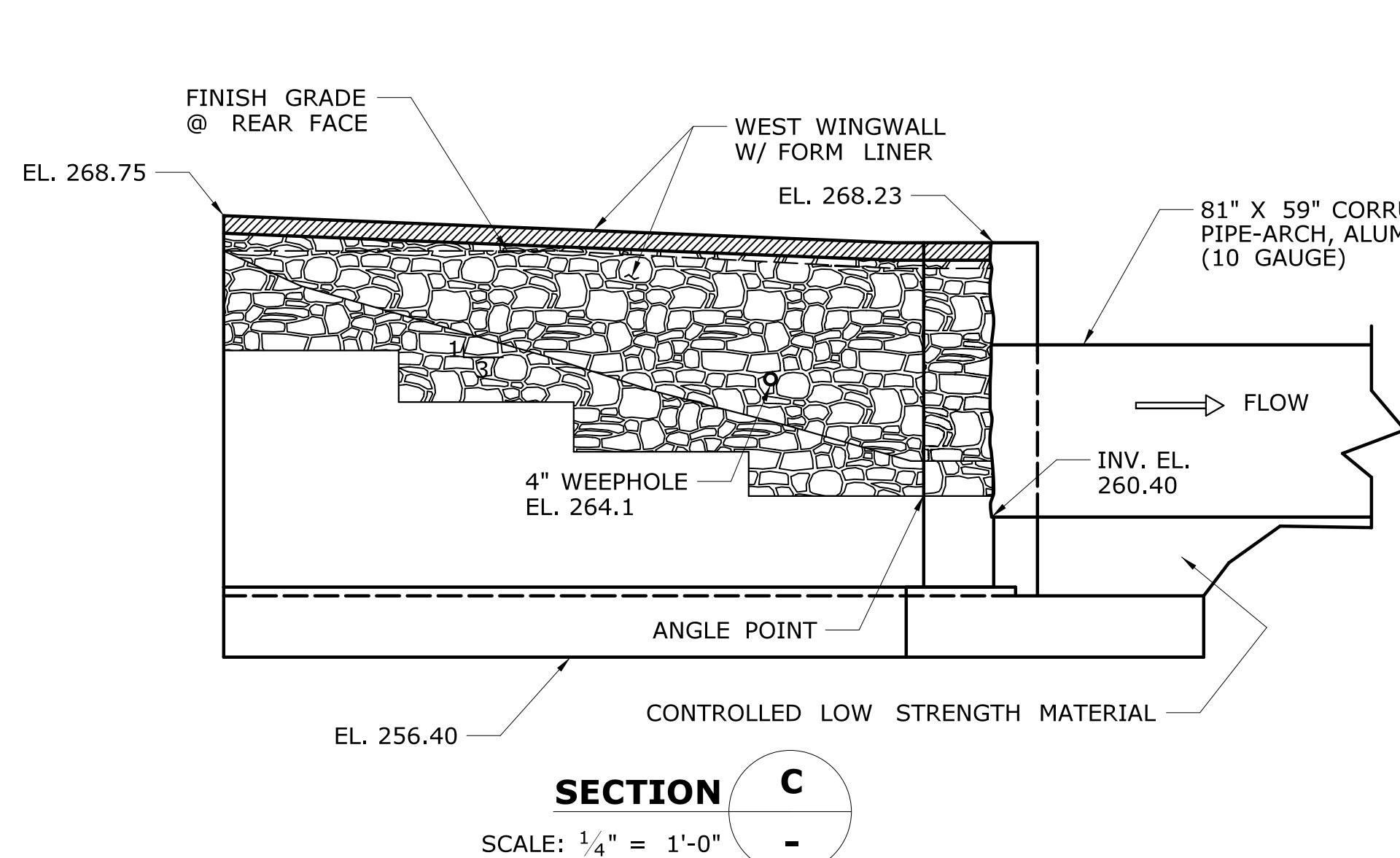
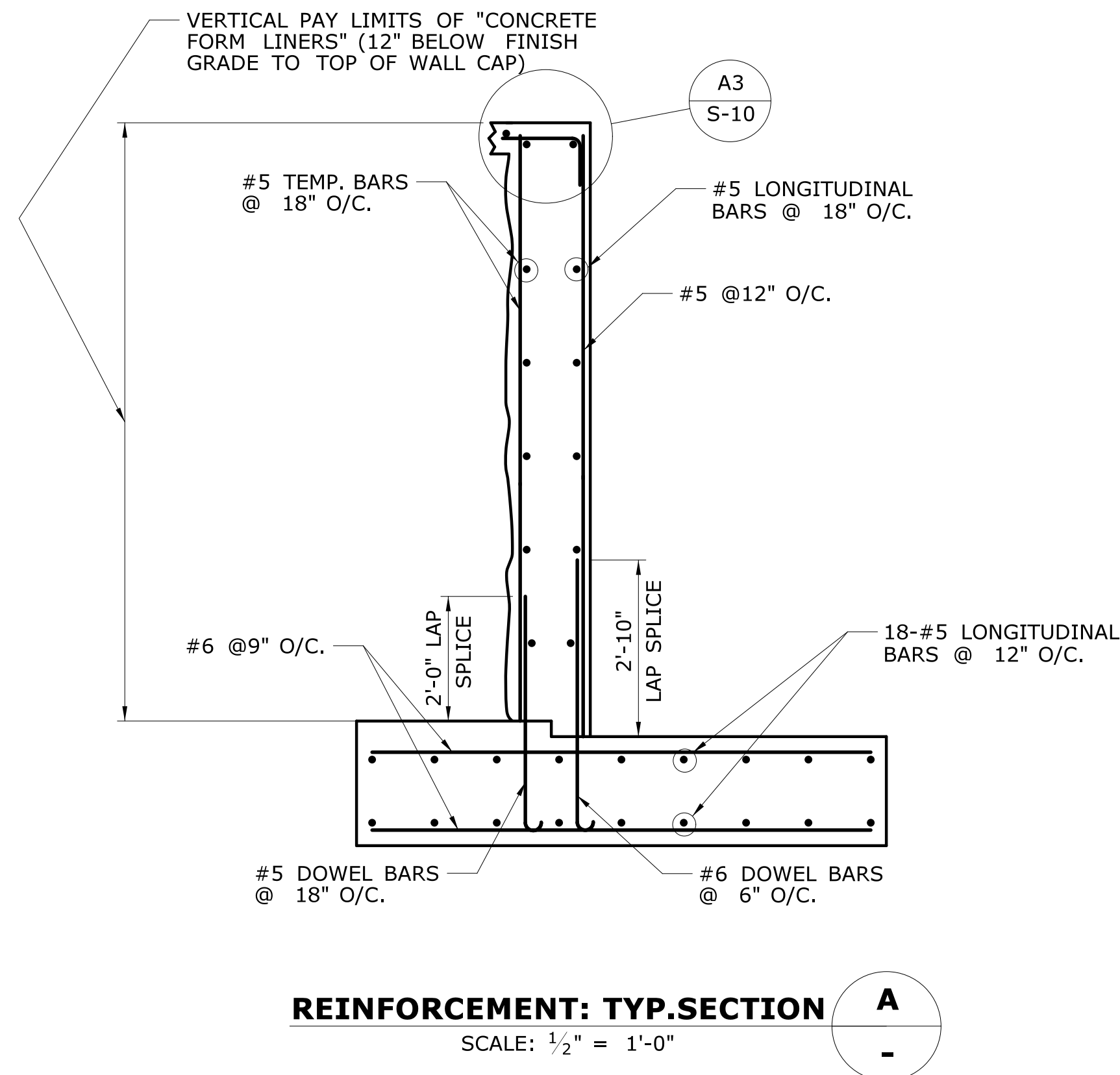
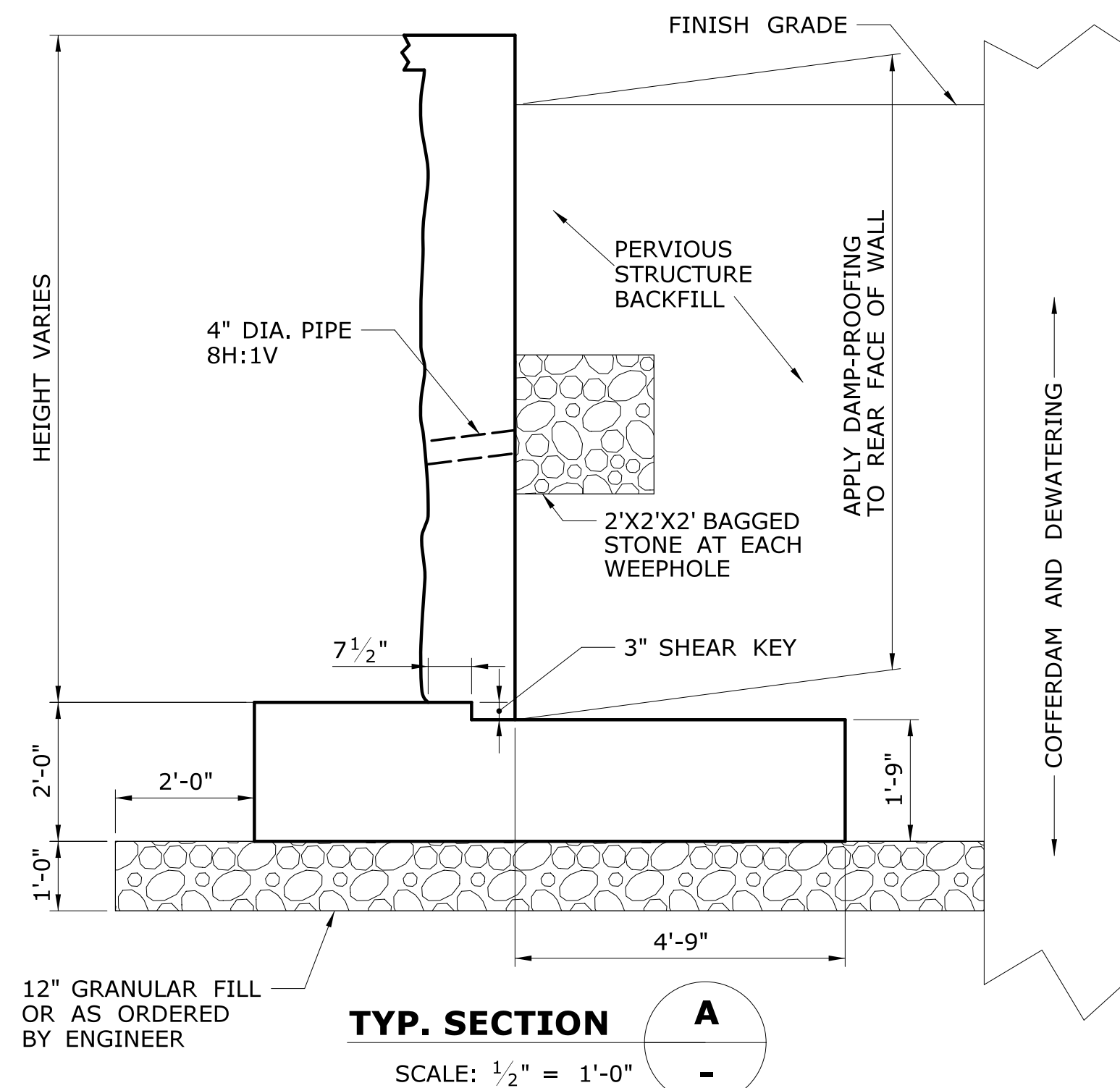


SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:


PROJECT TITLE:
SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.

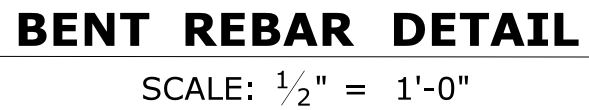
TOWN:
FARMINGTON
DRAWING TITLE:
CULVERT ELEVATION & PLANS (INLET)

PROJECT NO.
51-260
DRAWING NO.
S-7
SHEET NO.
06.07





EXCAVATION FOR THE INLET STRUCTURE SHALL BE PAID FOR UNDER ITEM "STRUCTURE EXCAVATION-EARTH (EXCLUDING COFFERDAM AND DEWATERING)"

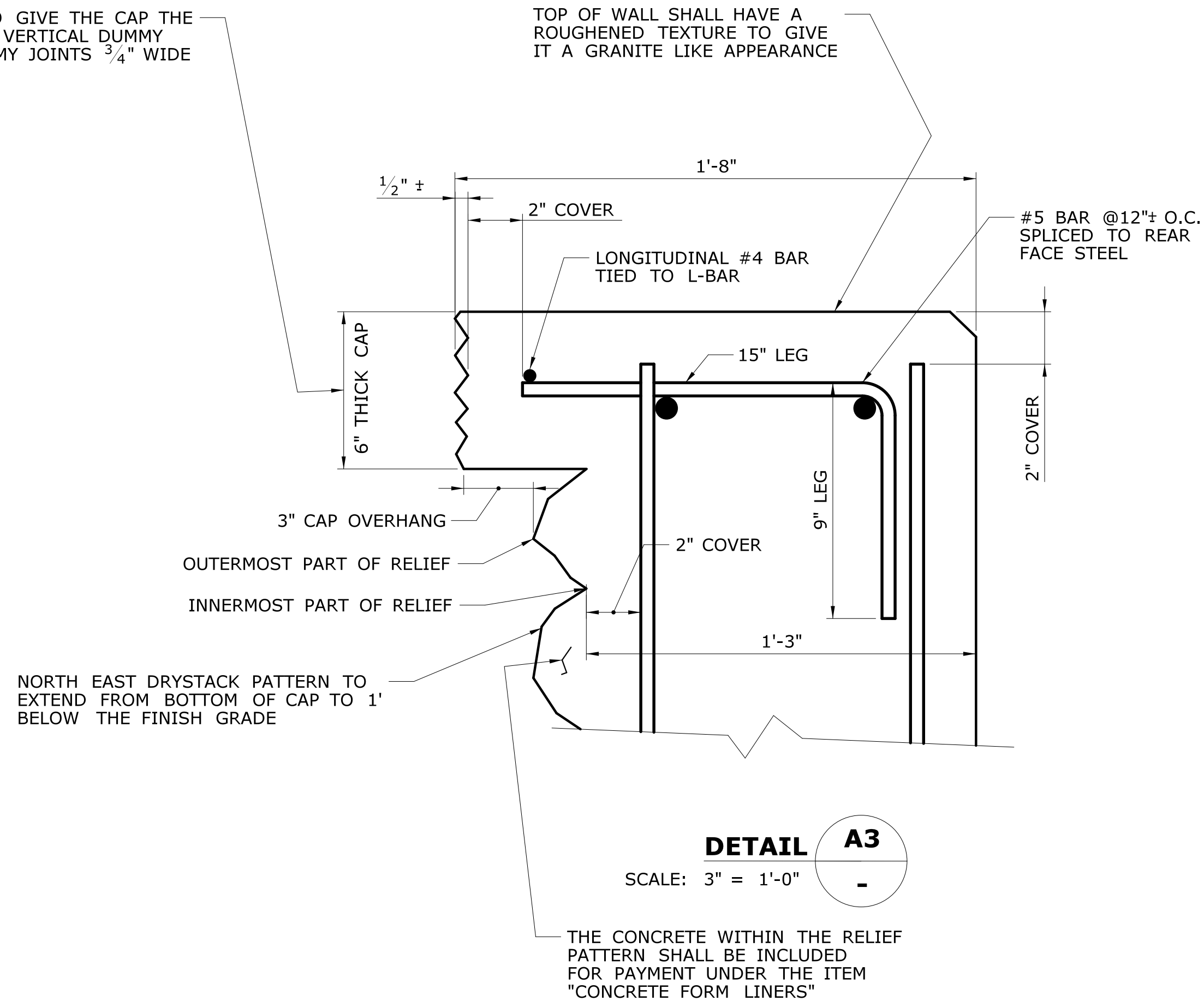
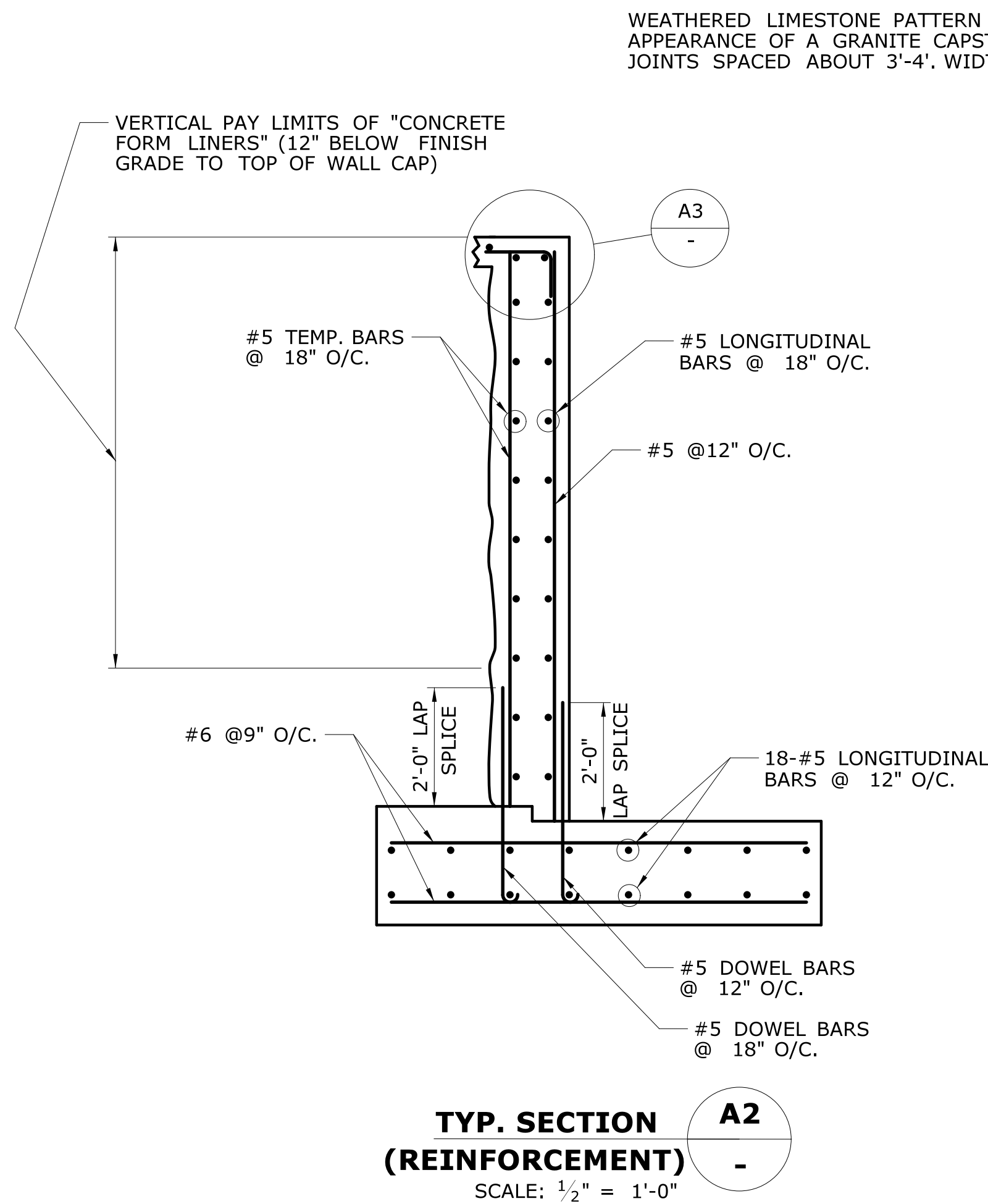
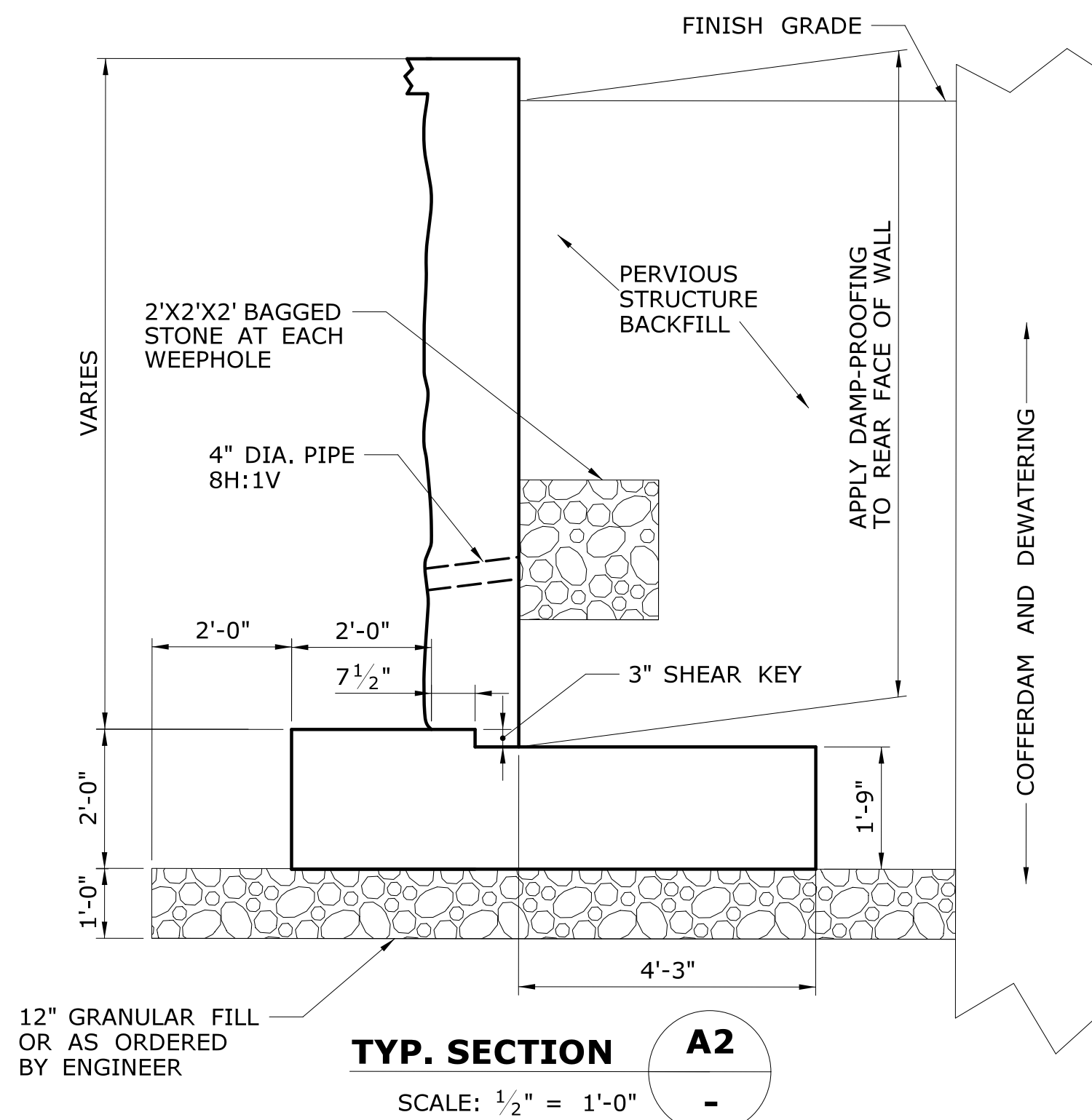
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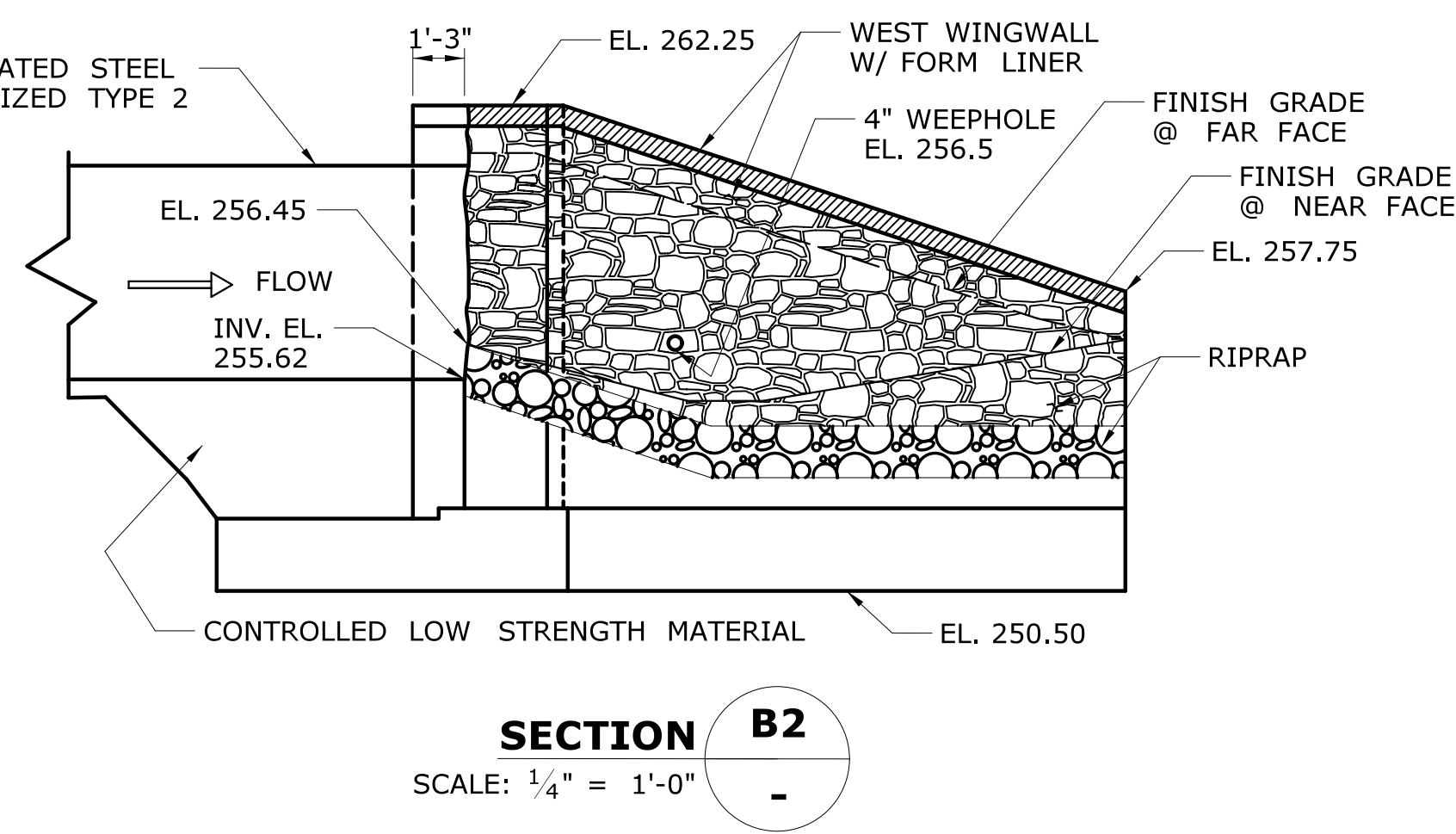
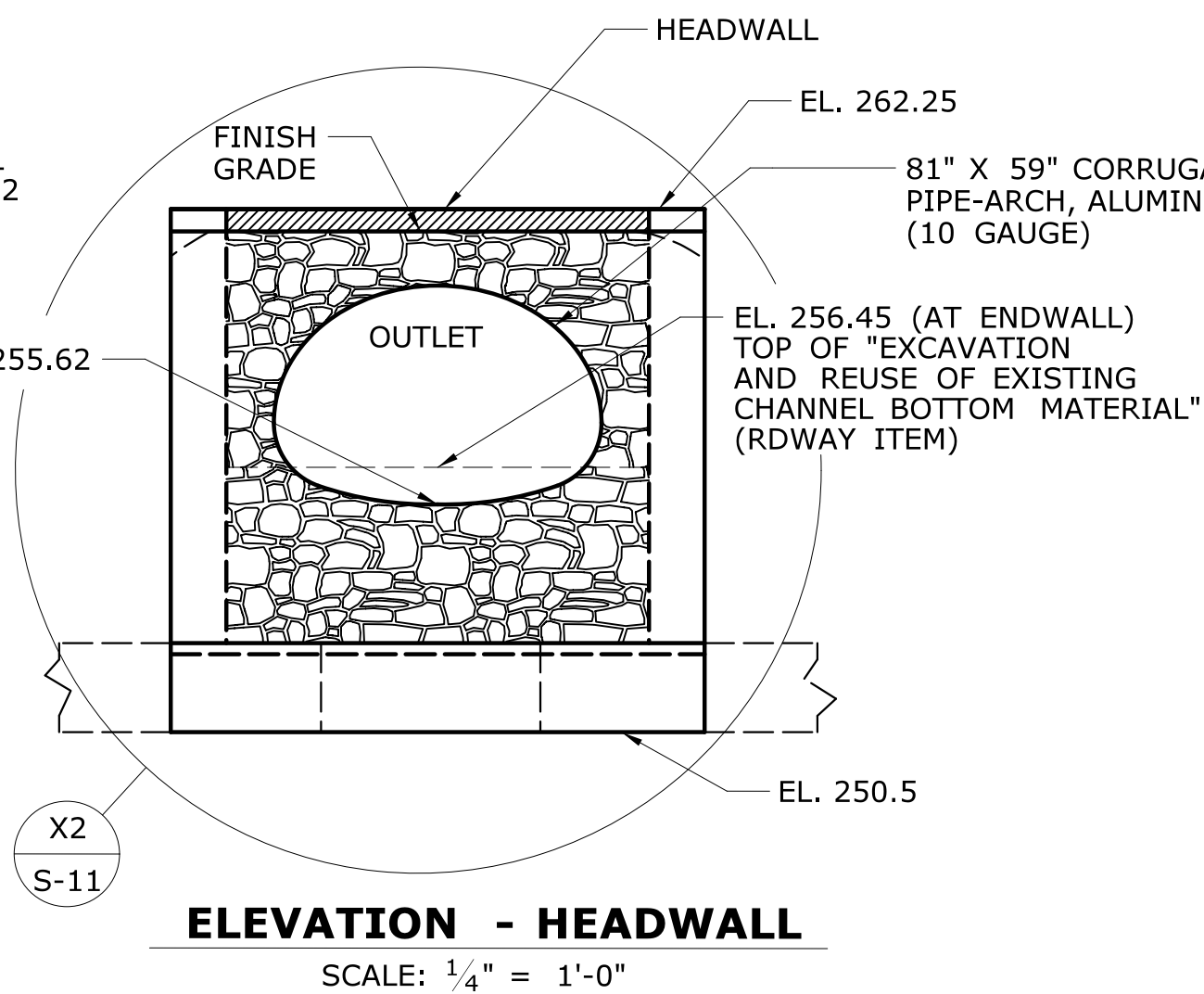
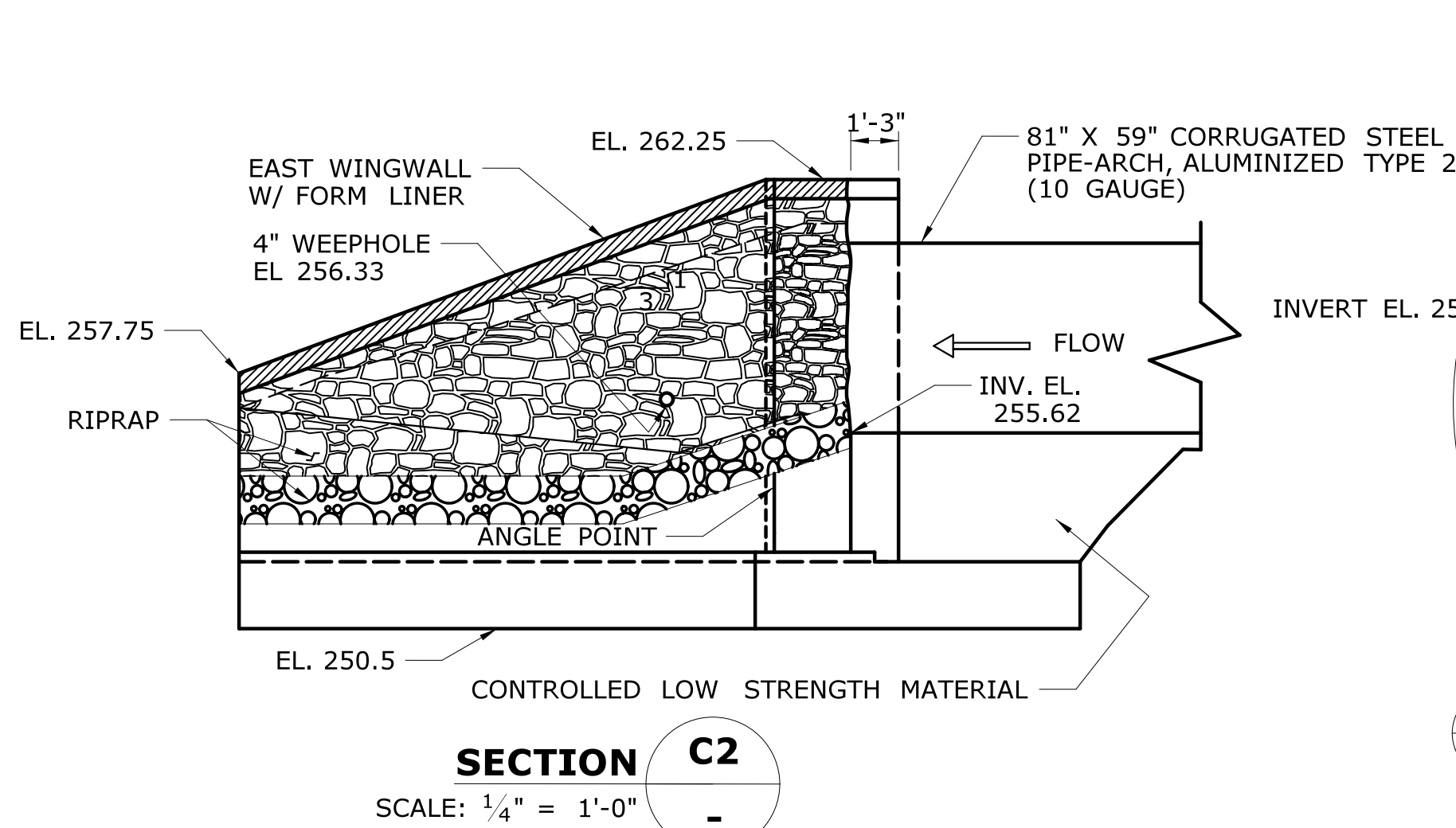
DETAIL "F2" (REINFORCEMENT)

SCALE: $\frac{1}{2}" = 1'-0"$

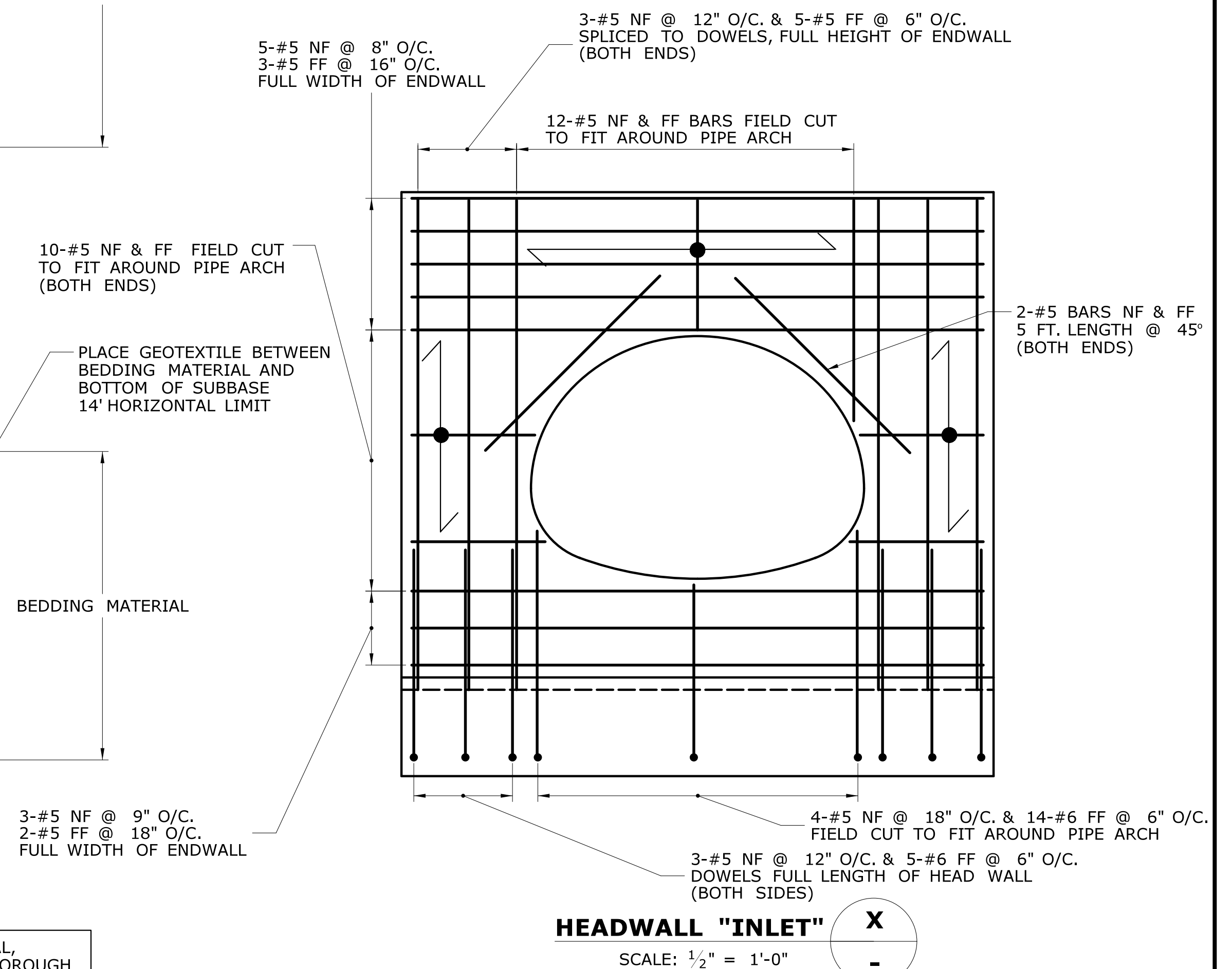
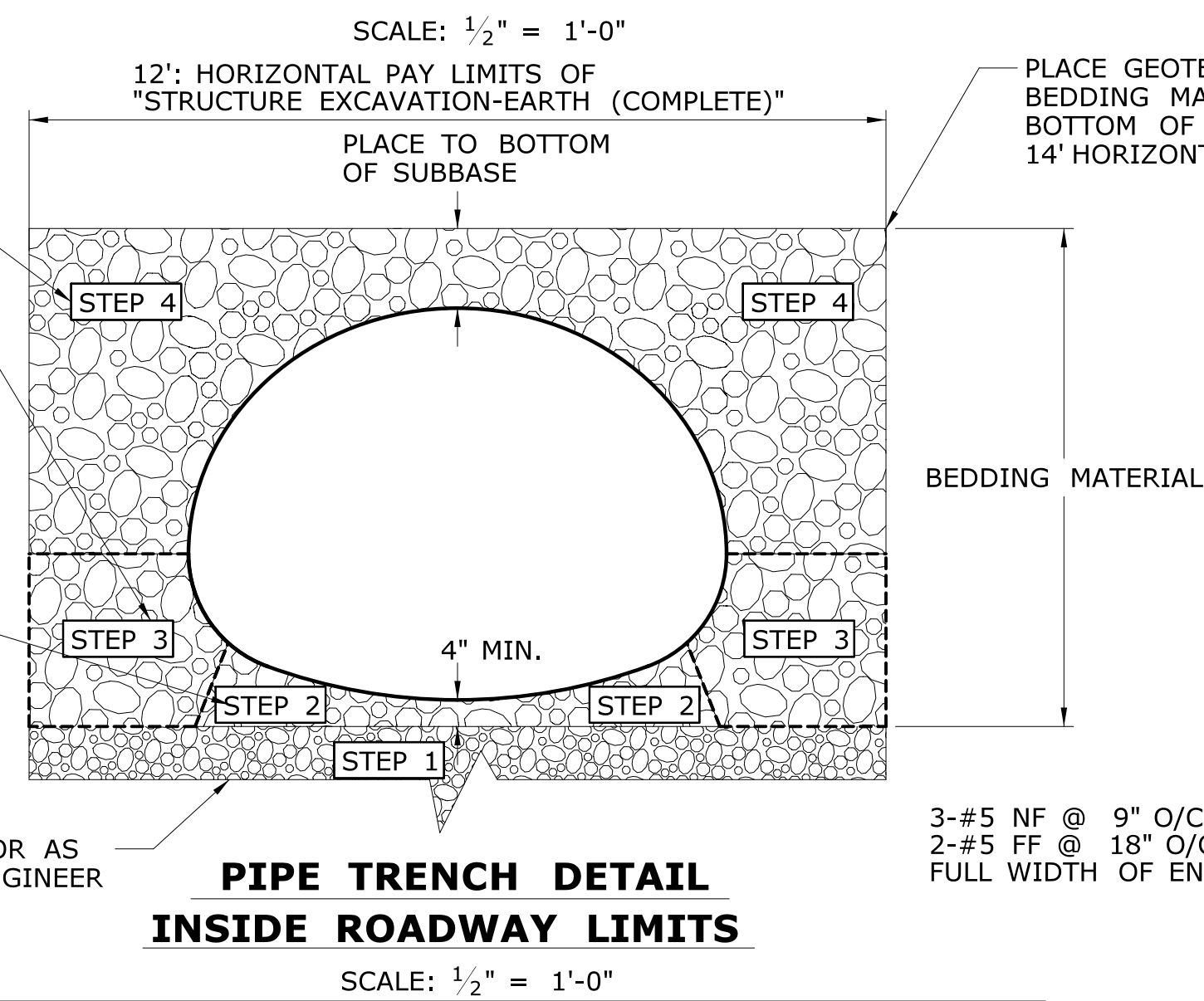
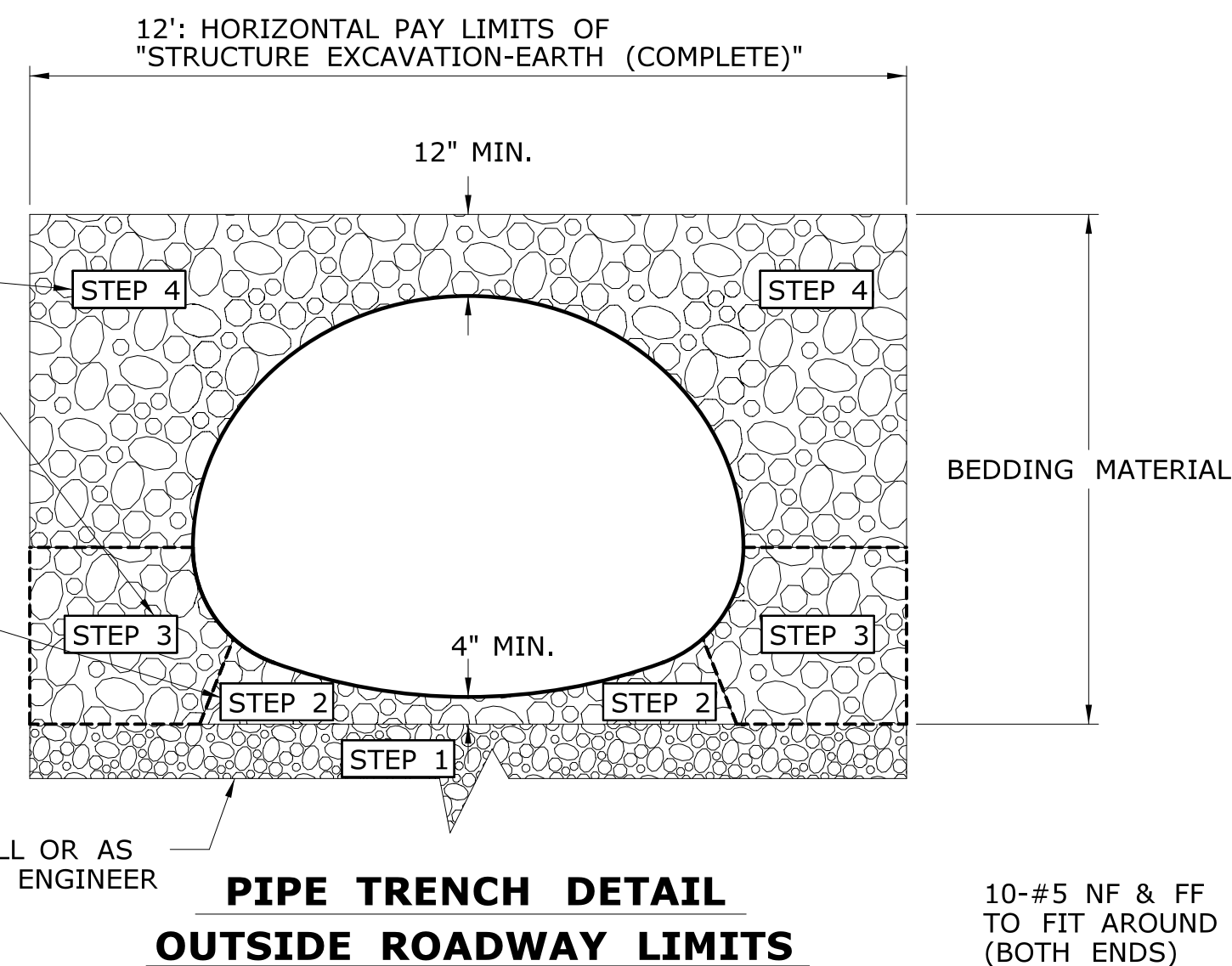
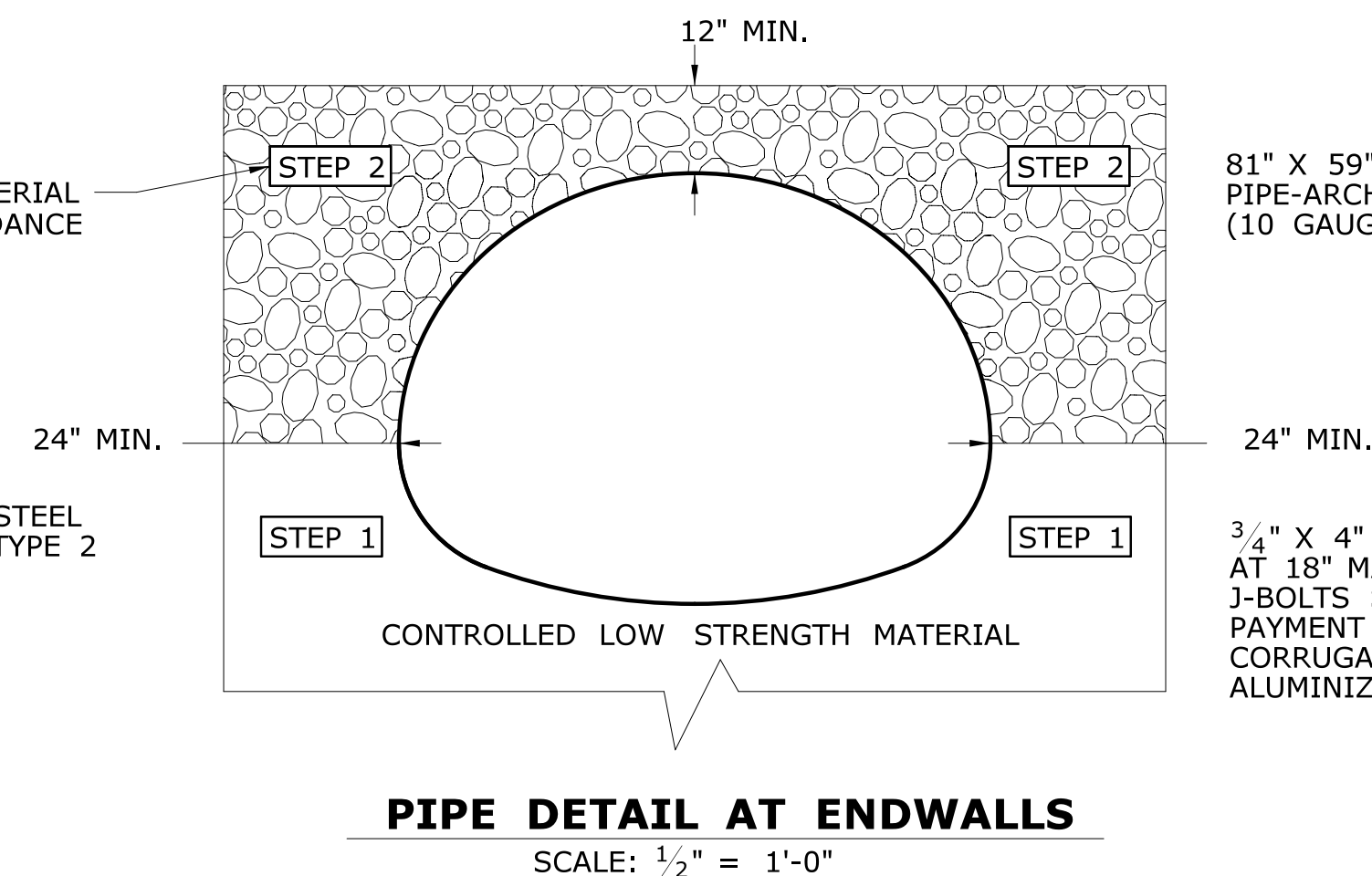
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: RDH CHECKED BY: RDD SCALE AS NOTED		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...Culvert_Outlet_Farmington_1.dgn		SIGNATURE/ BLOCK:  APPROVED BY:		PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.		TOWN: FARMINGTON		PROJECT NO. 51-260	
												DRAWING TITLE: CULVERT ELEVATION & PLANS (OUTLET)		DRAWING NO. S-9		SHEET NO. 06.09	
REV.	DATE	REVISION	DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015												



EXCAVATION FOR THE OUTLET STRUCTURE SHALL BE PAID FOR UNDER THE ITEMS "STRUCTURE EXCAVATION-EARTH (EXCLUDING COFFERDAM AND DEWATERING)", AND "STRUCTURE EXCAVATION-ROCK (EXCLUDING COFFERDAM AND DEWATERING)"

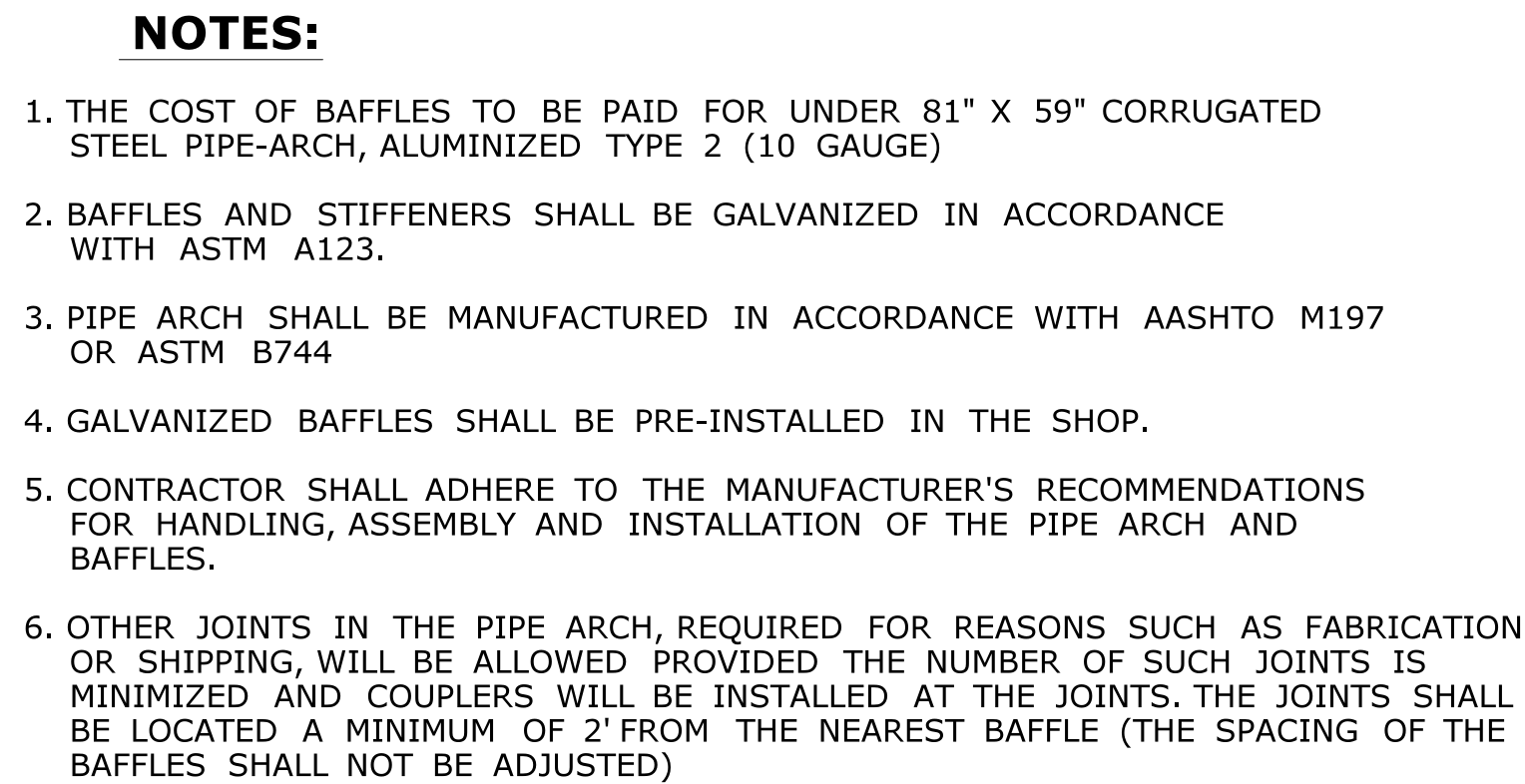


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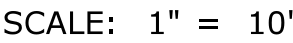


NOTE TO INSPECTOR: ACCORDING TO THE STEEL PIPE DESIGN MANUAL, THE STRENGTH OF METAL PIPE ARCHES IS HIGHLY DEPENDENT ON THOROUGH COMPACTION OF THE BEDDING MATERIAL, ESPECIALLY AT THE INDICATED "STEP 3" LOCATIONS. THE COMPACTION REQUIREMENTS IN ARTICLE 2.05.03 MUST BE STRICTLY ENFORCED.

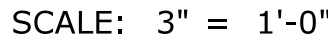
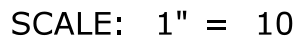
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SCALE: 1" = 10'

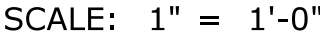




SCALE: 1" = 10'

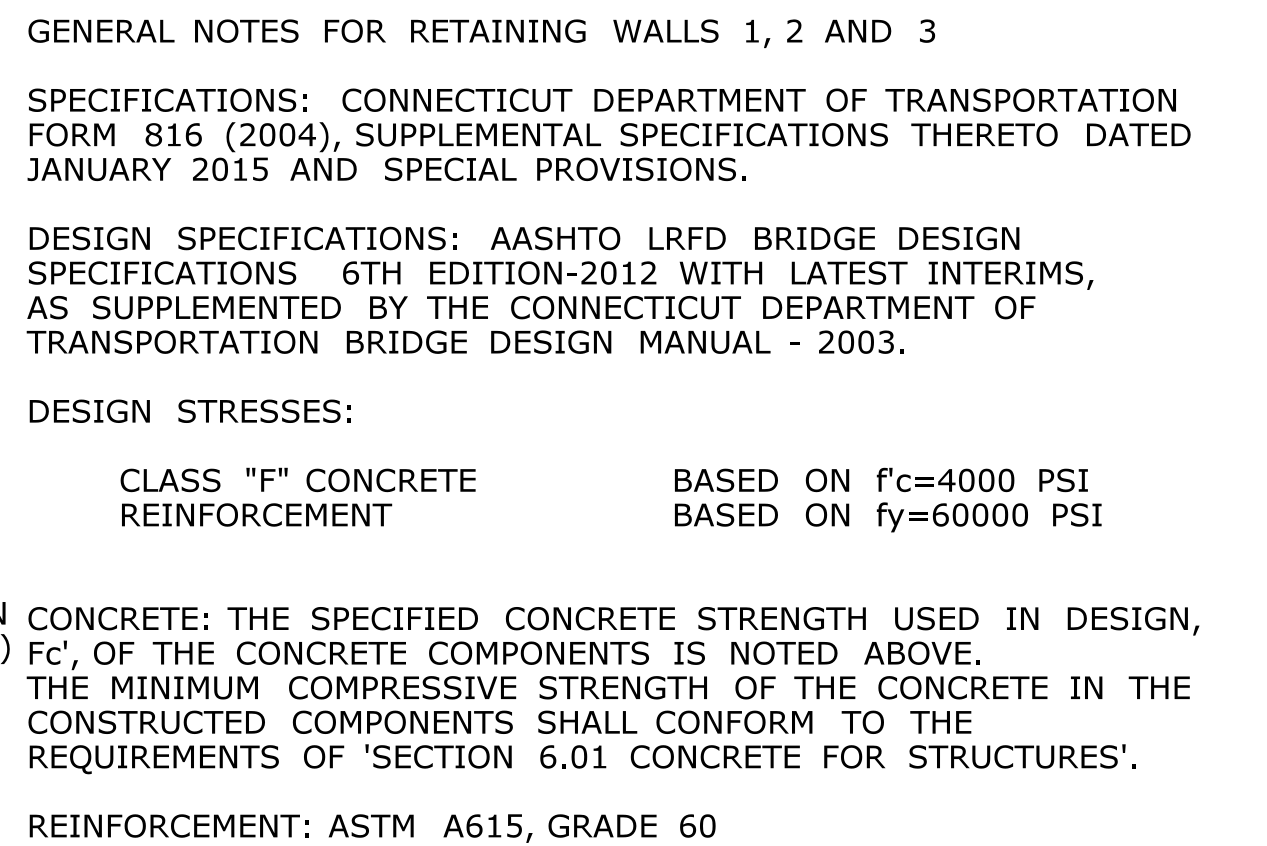


ALL STEEL COATINGS (GALVANIZED, ALUMINIZED) THAT ARE AFFECTED BY THE WELDING OPERATIONS SHALL BE TOUCHED UP AFTER FABRICATION IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPE MANUFACTURER

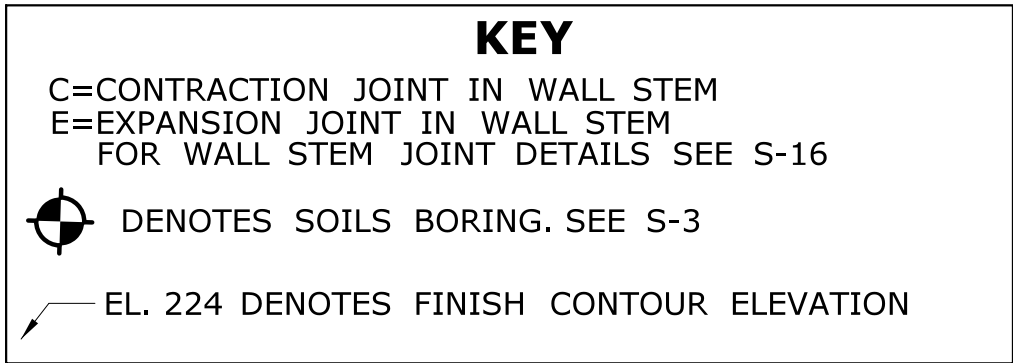
SCALE: 1" = 1'-0"





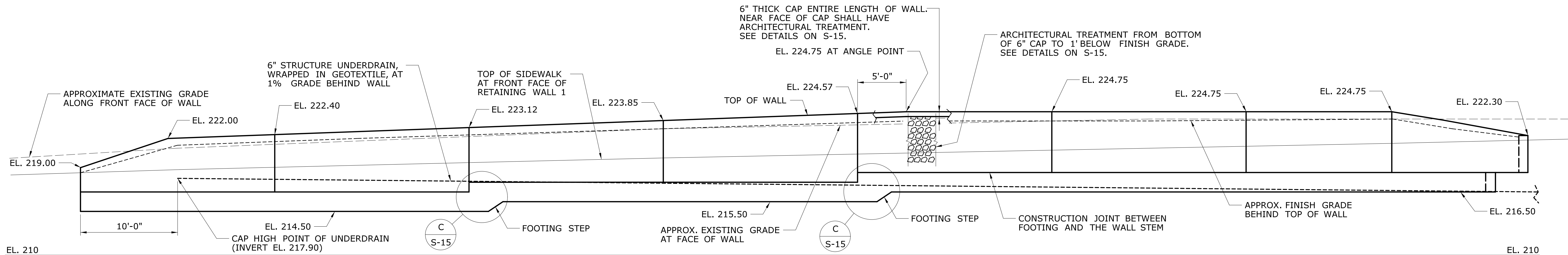
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: RDH CHECKED BY: RDD SCALE AS NOTED		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 		PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.		TOWN: FARMINGTON		PROJECT NO. 51-260		
														DRAWING NO. S-12				
														DRAWING TITLE: BAFFLE DETAILS		SHEET NO. 06.12		
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 7/9/2015				Filename: ...\\Culvert_Baffle_Plan.dgn									



RETAINING WALL NO. 1	
MAXIMUM BEARING PRESSURE	
STRENGTH LIMIT STATES	SERVICE LIMIT STATES
1.405 KSI	1.314 KSI

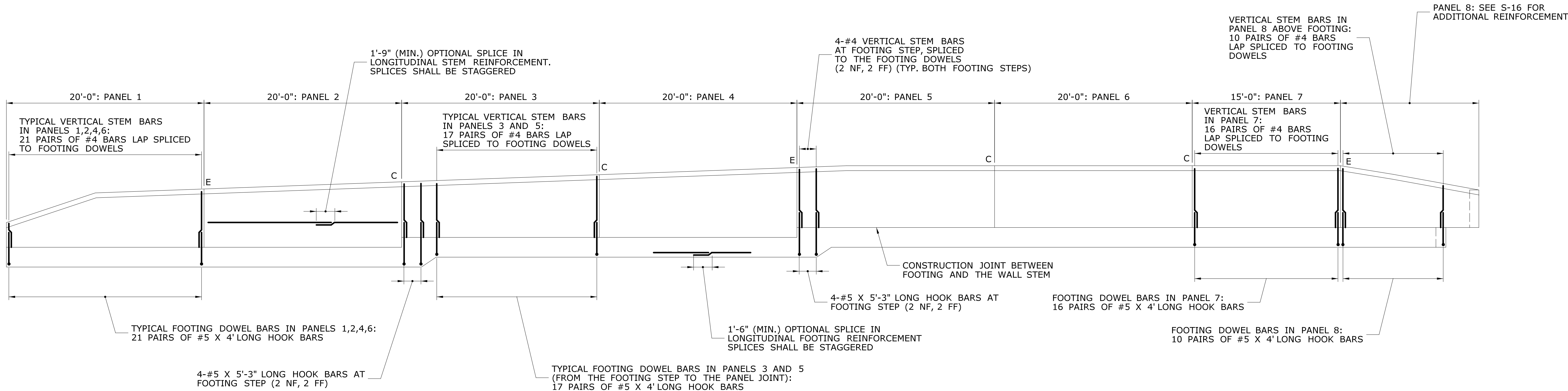


					THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: RDD CHECKED BY: RDD SCALE AS NOTED	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\SB-GeneralPlanWall1.dgn	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON DRAWING TITLE: GENERAL PLAN RETAINING WALL 1	PROJECT NO. 51-260 DRAWING NO. S-13 SHEET NO. 06.13
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date:	7/9/2015						



ELEVATION VIEW-RETAINING WALL NO. 1

SCALE: $\frac{3}{16}$ "=1'-0"



REINFORCEMENT

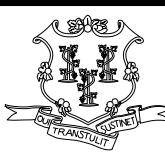
SCALE: $\frac{3}{16}$ "=1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.


THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/9/2015

DESIGNER/DRAFTER:
RDD
CHECKED BY:
RDD
SCALE AS NOTED

 **STATE OF CONNECTICUT**
DEPARTMENT OF TRANSPORTATION

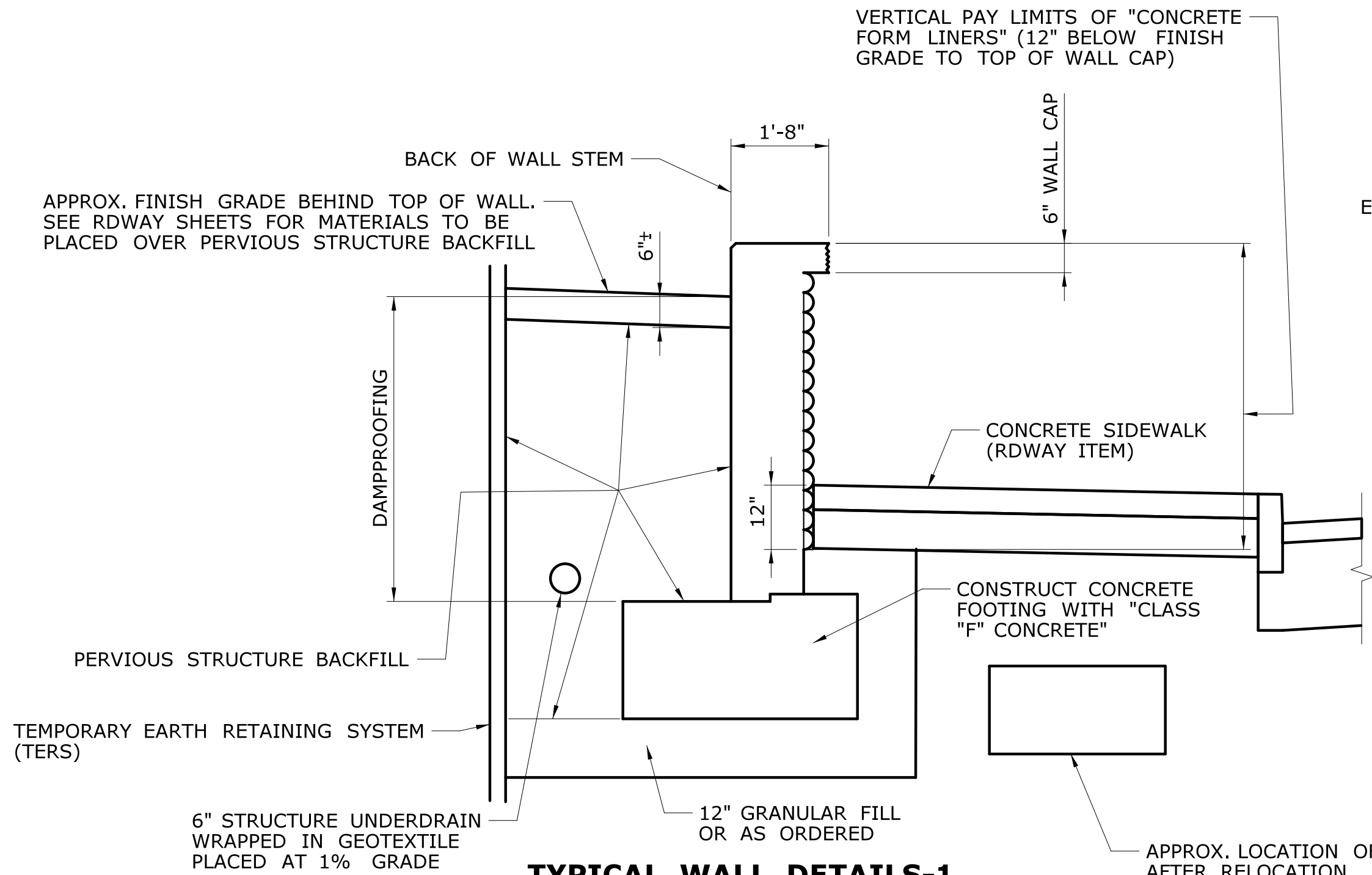
Filename: ...\\SB_Wall1\\DetailsAA.dgn

SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:


PROJECT TITLE:
SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.

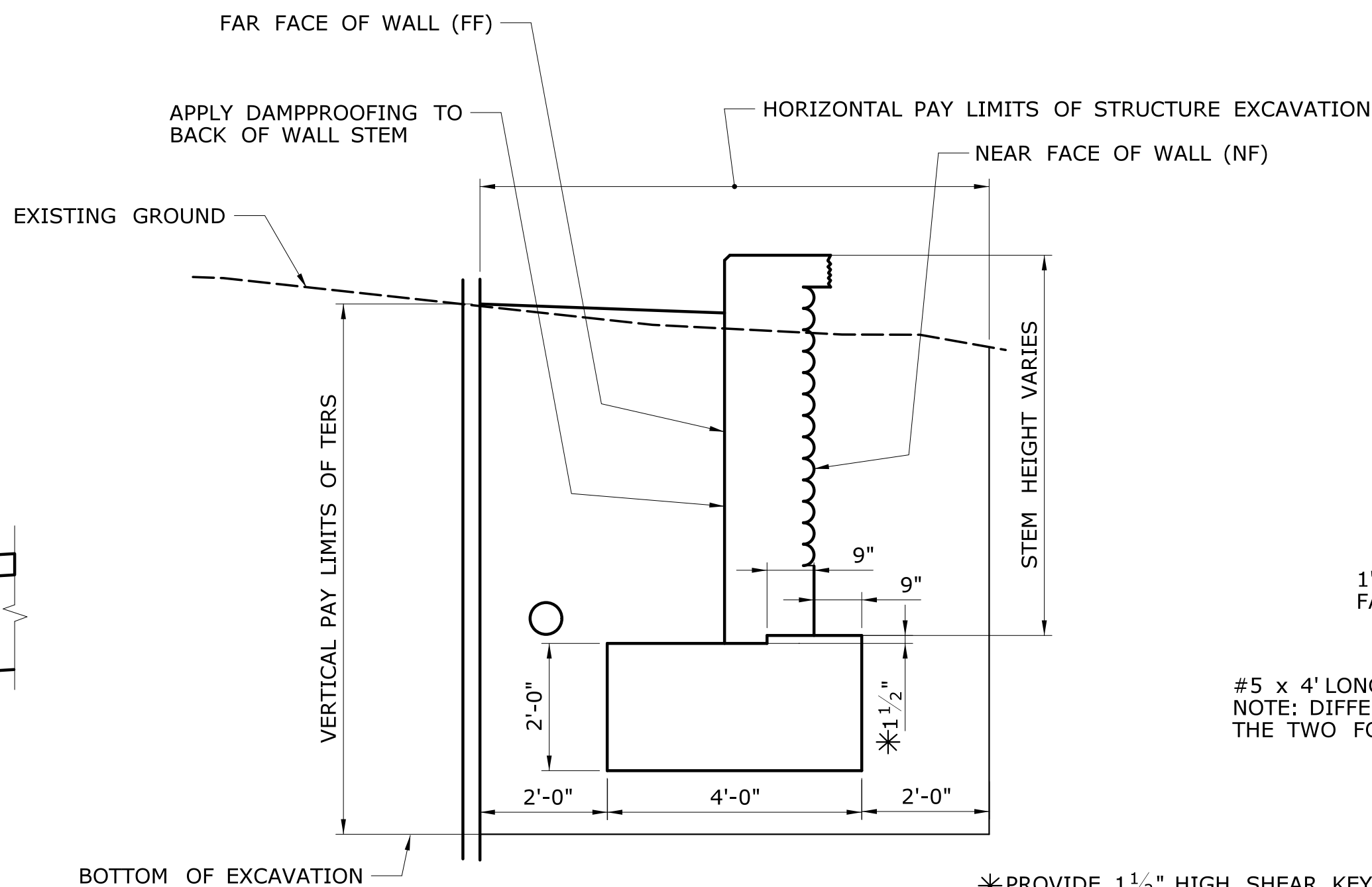
TOWN:
FARMINGTON
DRAWING TITLE:
RETAINING WALL 1
DETAILS-1

PROJECT NO.
51-260
DRAWING NO.
S-14
SHEET NO.
06.14



TYPICAL WALL DETAILS-1

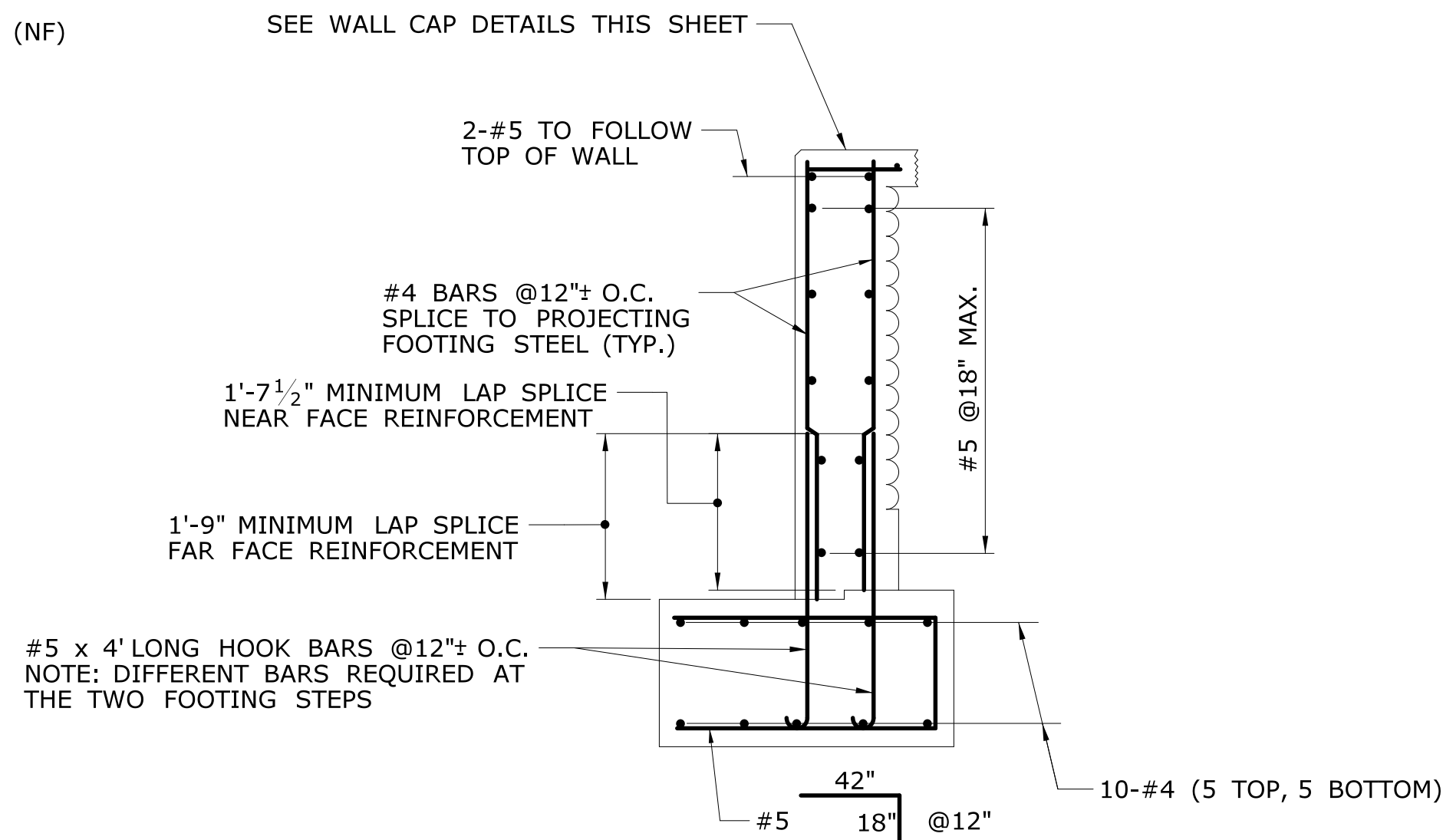
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TYPICAL WALL DETAILS-2

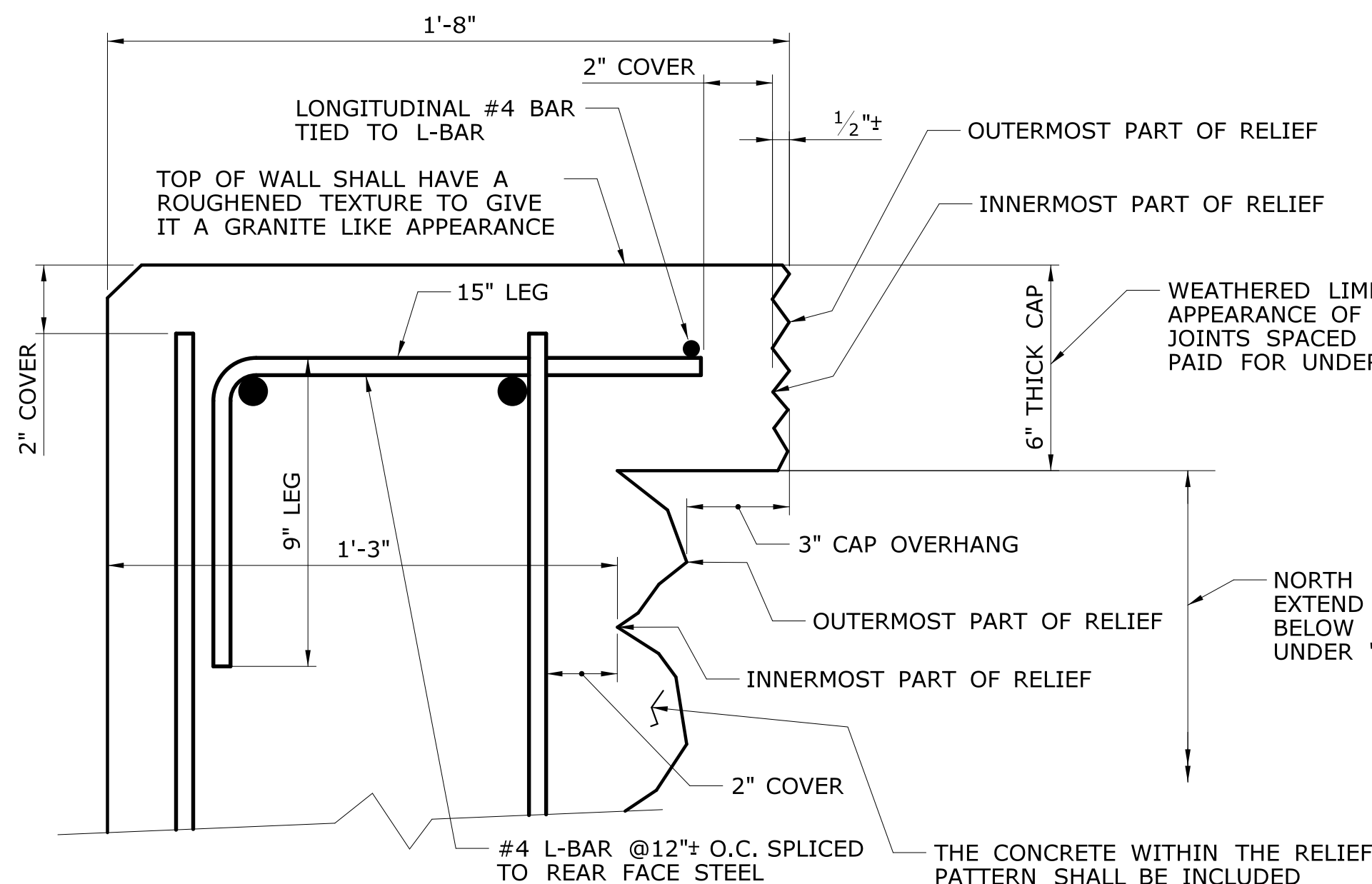
SCALE: 1/2"=1'-0"

*PROVIDE 1 1/2" HIGH SHEAR KEY AT THE CONSTRUCTION JOINT BETWEEN THE WALL STEM AND THE FOOTING



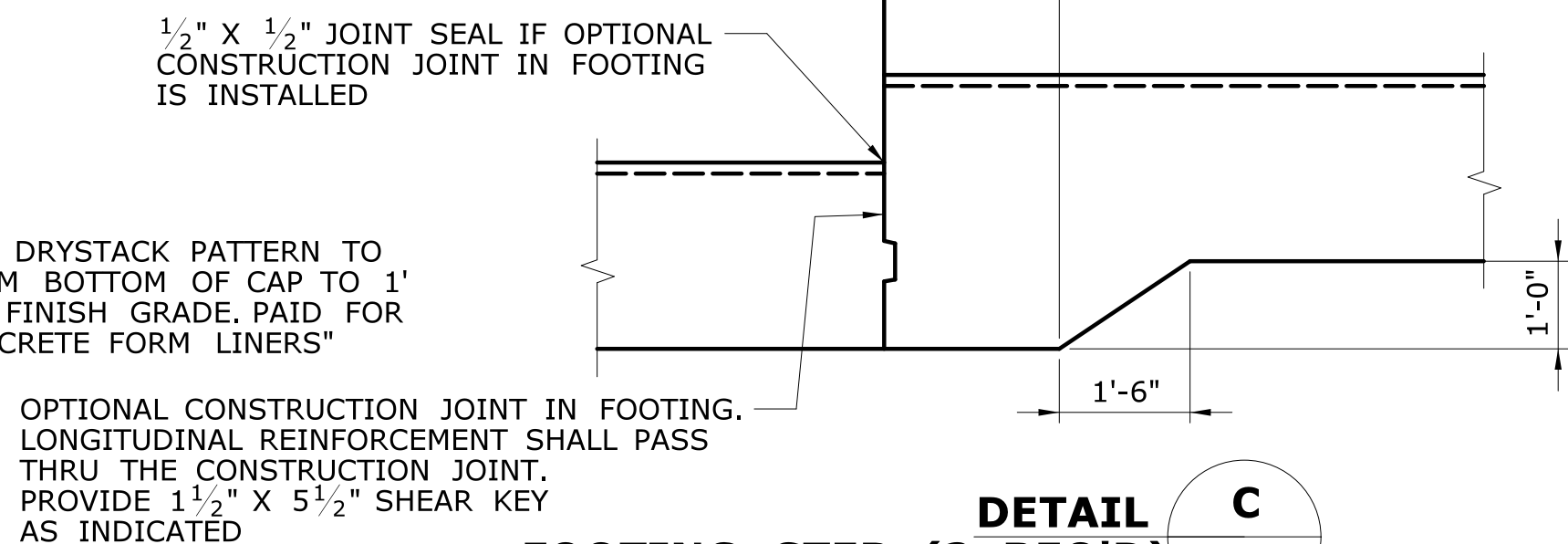
WALL REINFORCEMENT

SCALE: 1/2"=1'-0"



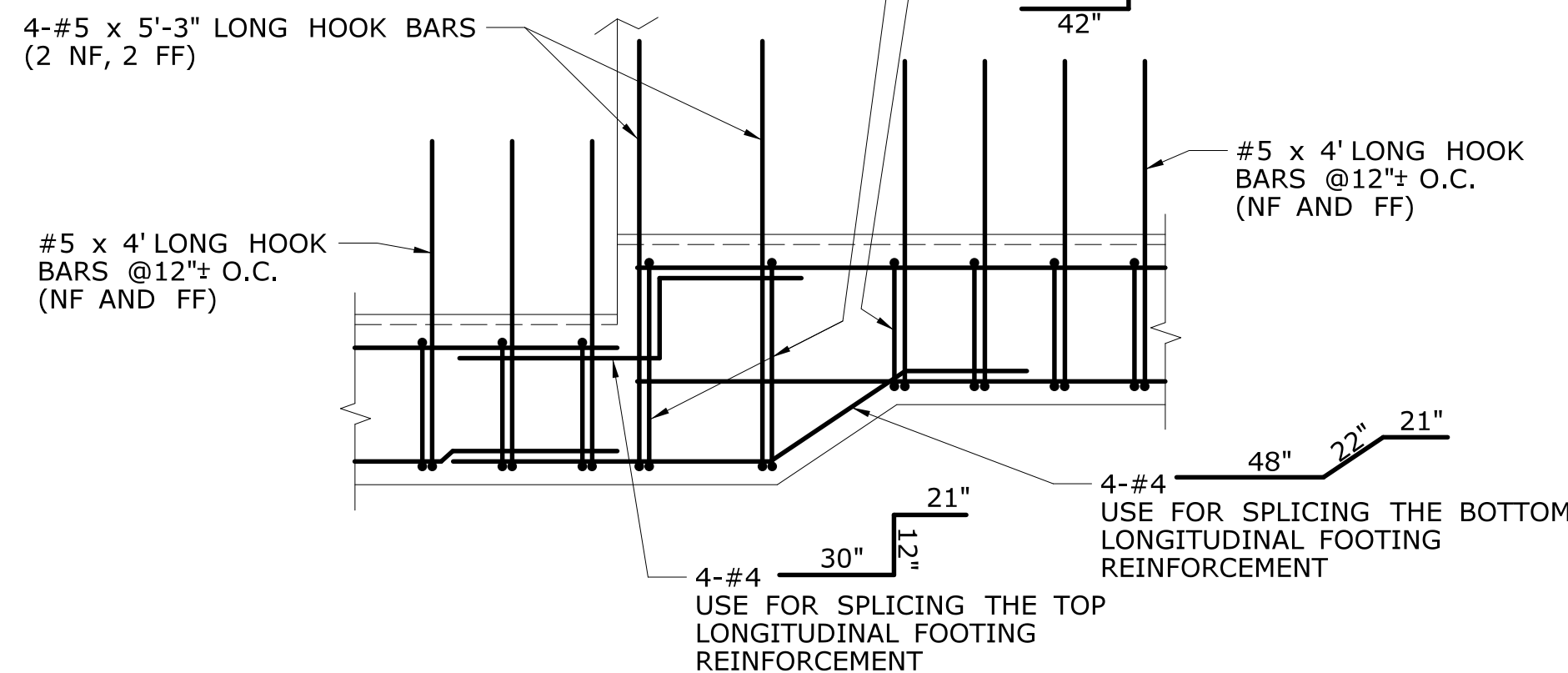
WALL CAP DETAILS

SCALE: 3"=1'-0"



DETAIL C
FOOTING STEP (2 REQ'D)

SCALE: 1/2"=1'-0"



DETAIL C
REINFORCEMENT

SCALE: 1/2"=1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

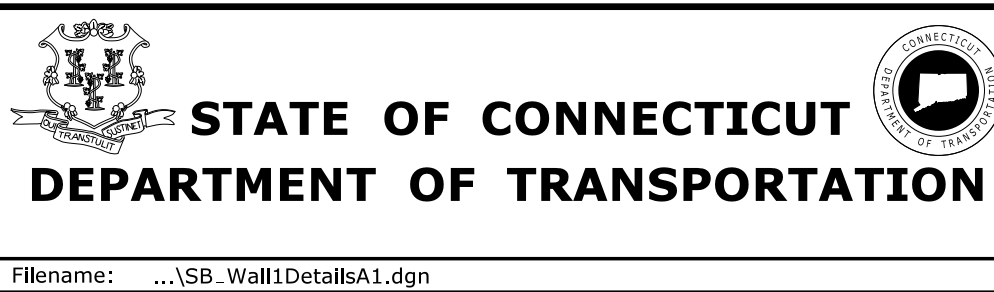
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/9/2015

DESIGNER/DRAFTER:
RDD

CHECKED BY:
JK

SCALE AS NOTED



SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING

APPROVED BY:
[Signature]

PROJECT TITLE:
SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.

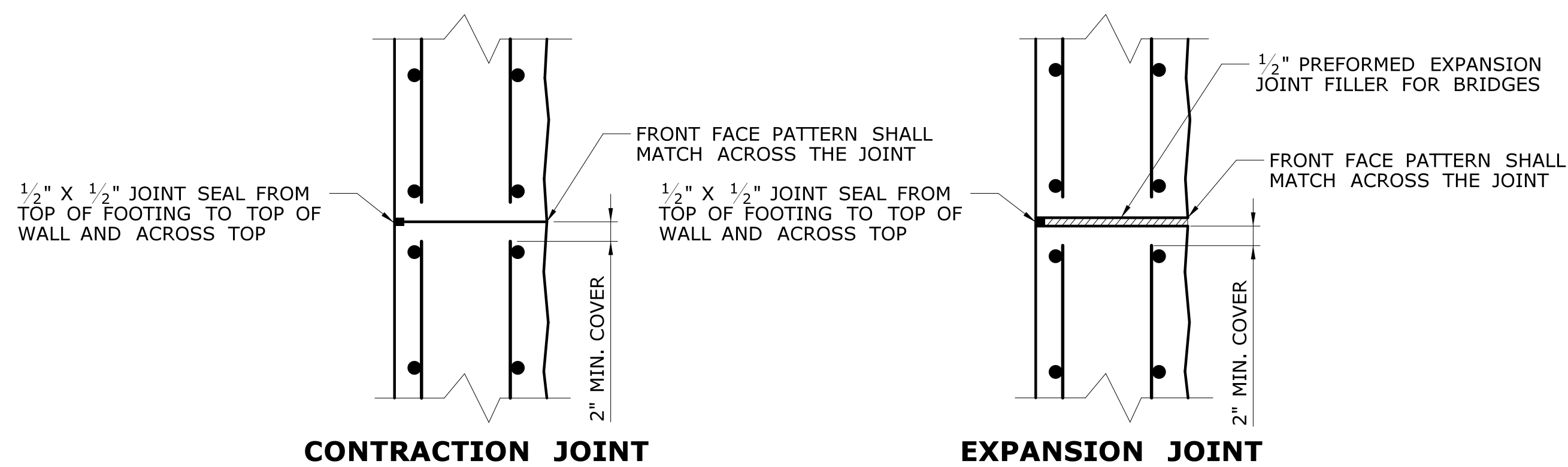
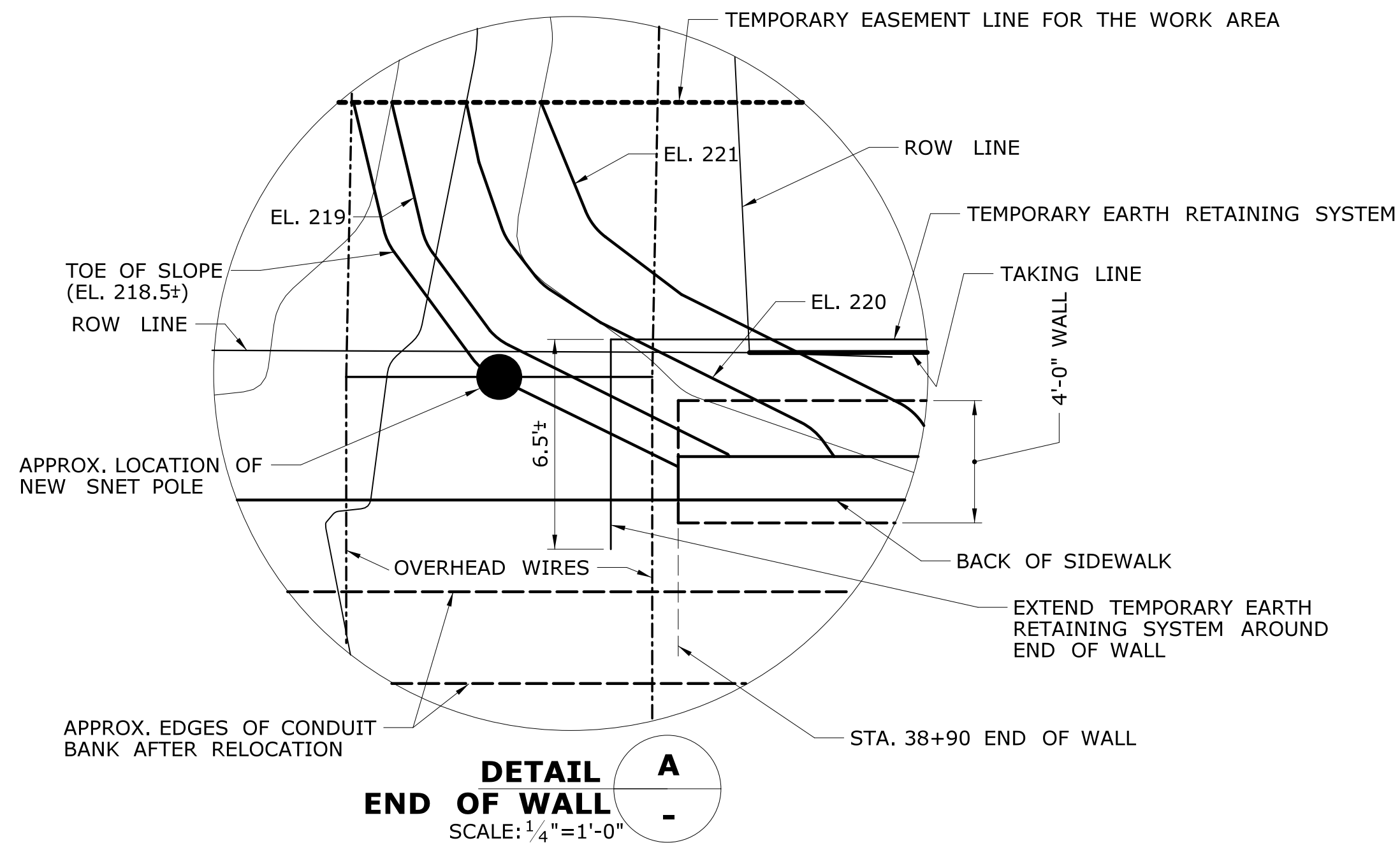
TOWN:
FARMINGTON

DRAWING TITLE:
RETAINING WALL 1
DETAILS-1

PROJECT NO.
51-260

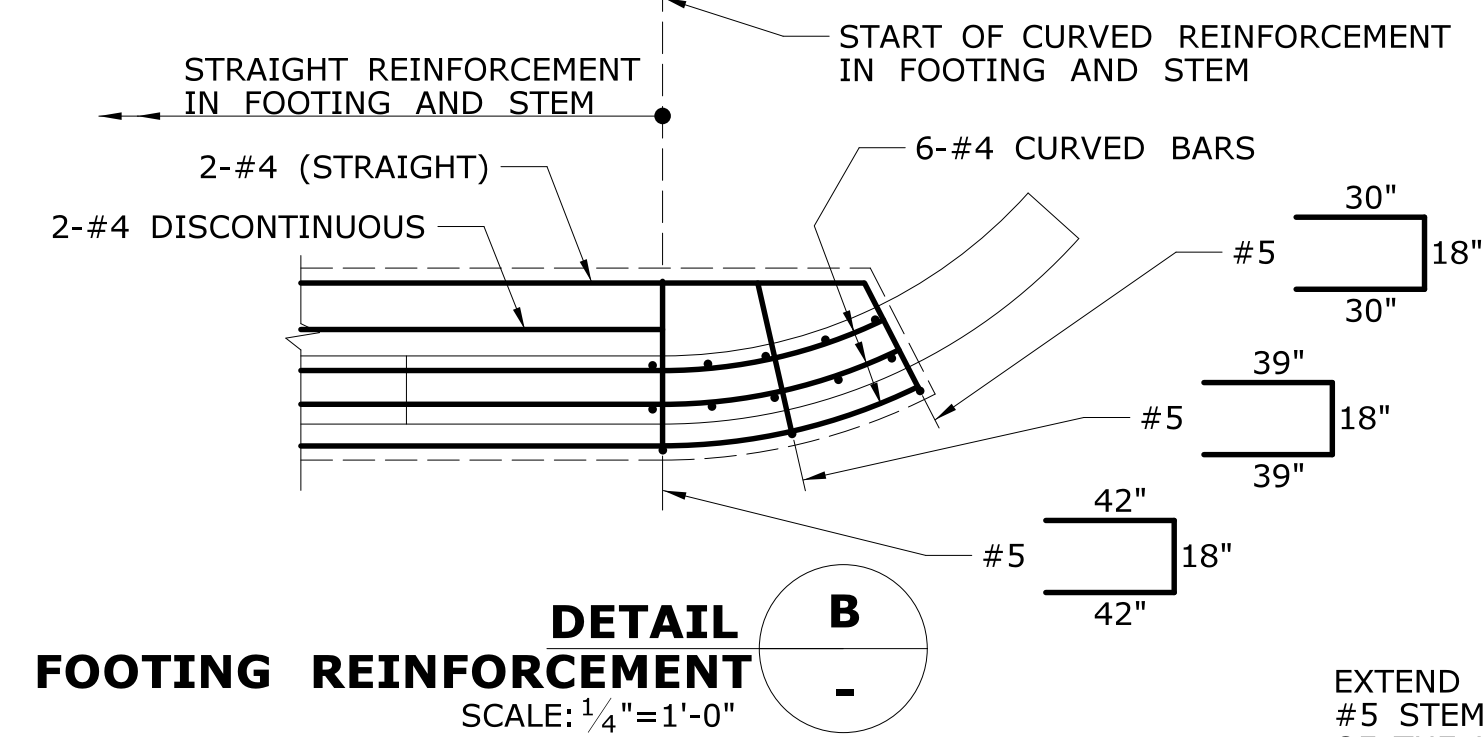
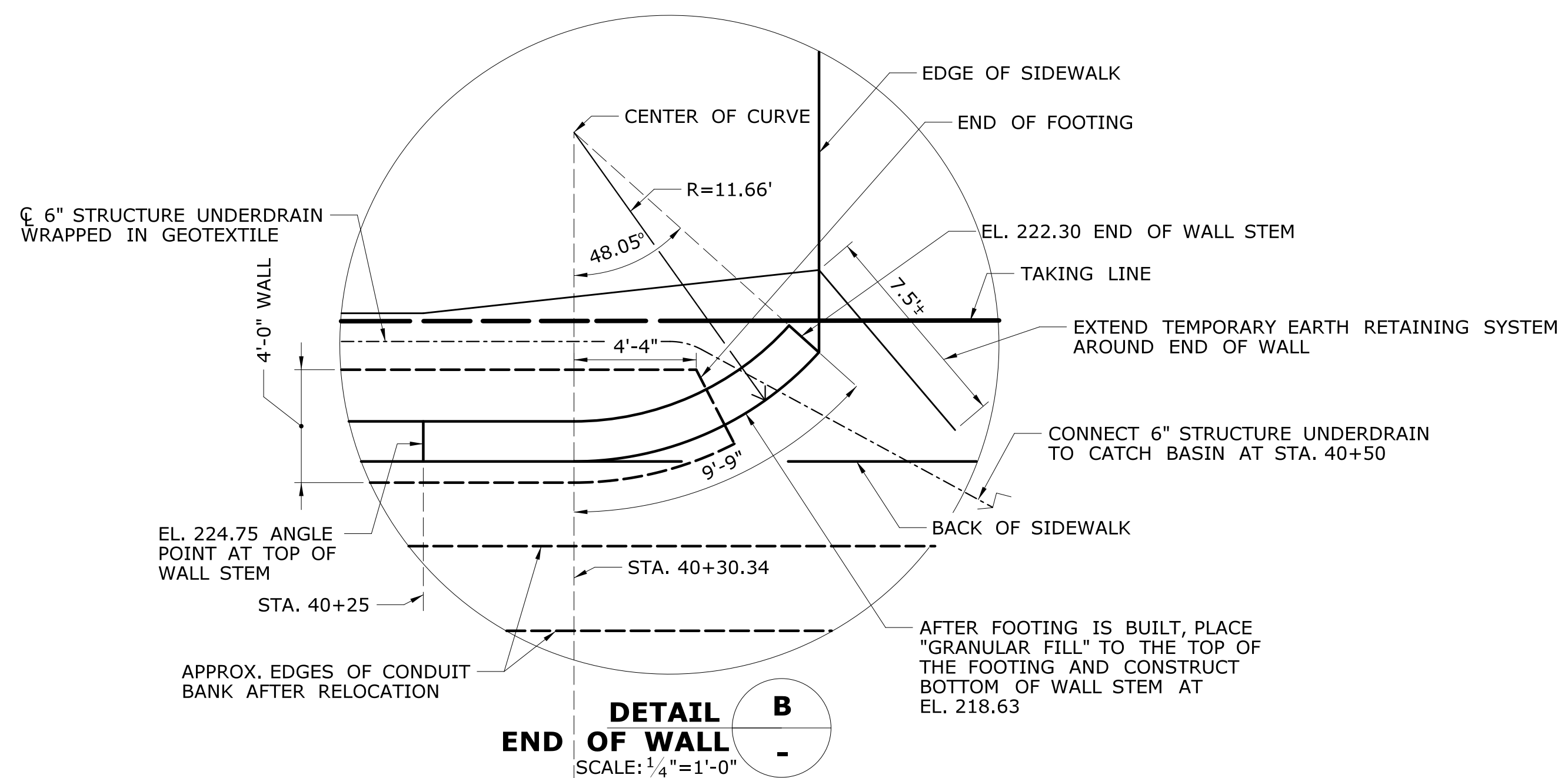
DRAWING NO.
S-15

SHEET NO.
06.15



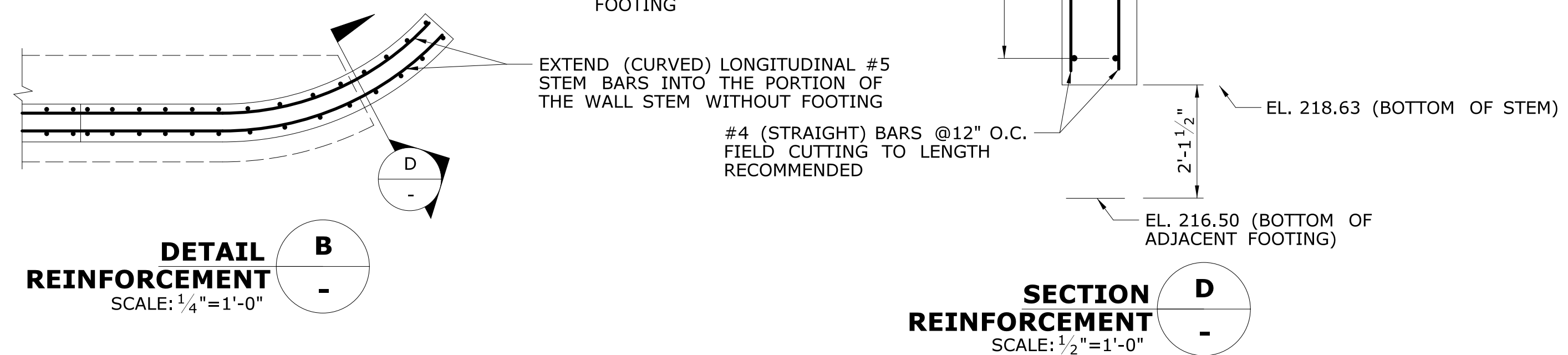
VERTICAL WALL STEM JOINT DETAILS

SCALE: 1"=1'-0"



FOOTING REINFORCEMENT

SCALE: 1/4"=1'-0"



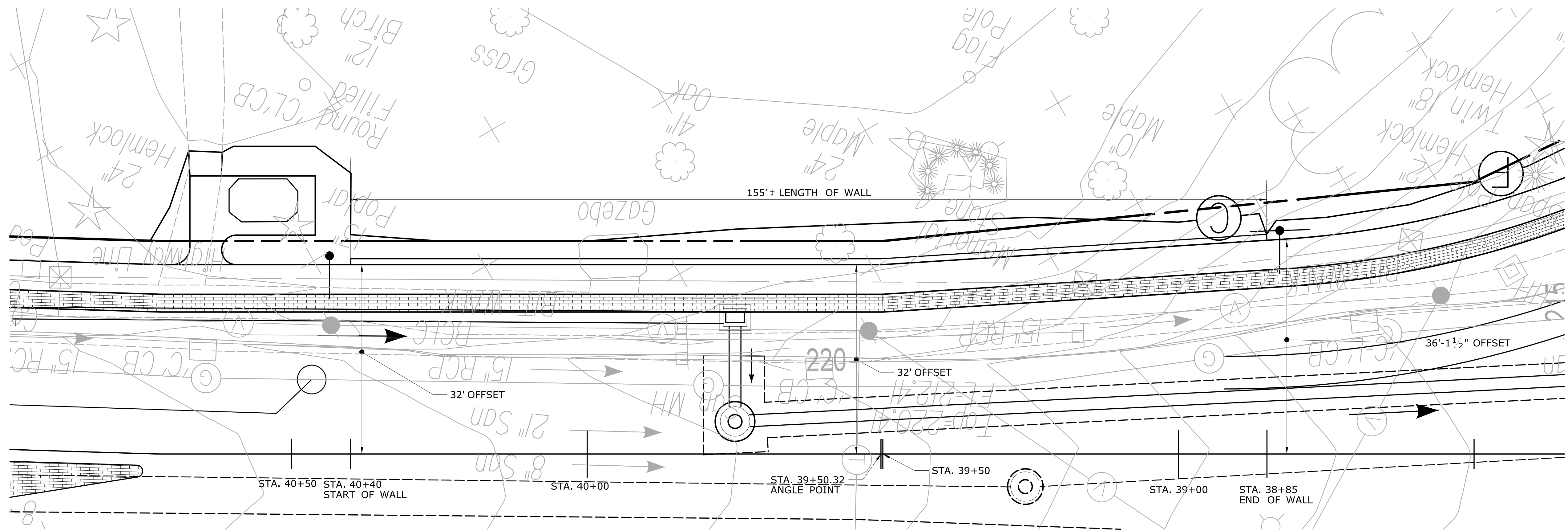
STEM REINFORCEMENT

SCALE: 1/4"=1'-0"

SECTION D

SCALE: 1/2"=1'-0"

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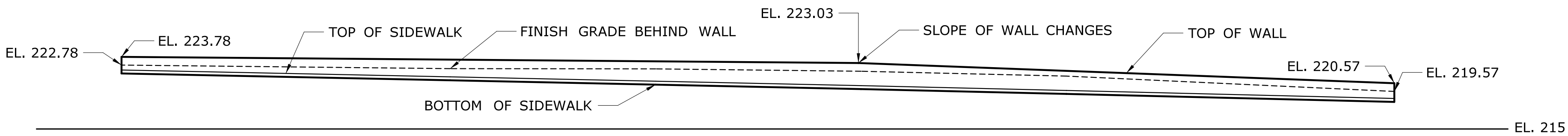


PLAN VIEW WALL NO. 2

SCALE: 1" = 10'

TABLE OF ELEVATIONS

STATION	TOP OF SIDEWALK	TOP OF WALL
39+00	219.02	221.13
39+25	219.69	222.08
39+50	220.28	223.02
39+75	220.82	223.24
40+00	221.35	223.45
40+25	221.87	223.66



ELEVATION VIEW WALL NO. 2

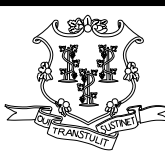
SCALE: 1" = 10'


REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.


Plotted Date: 7/9/2015

DESIGNER/DRAFTER:
JJK
CHECKED BY:
RDD
SCALE AS NOTED

**STATE OF CONNECTICUT**
DEPARTMENT OF TRANSPORTATION



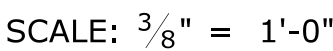
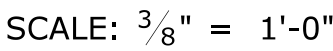
Filename: ...\\SB_GeneralPlanWall2.dgn

SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:




PROJECT TITLE:
SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.

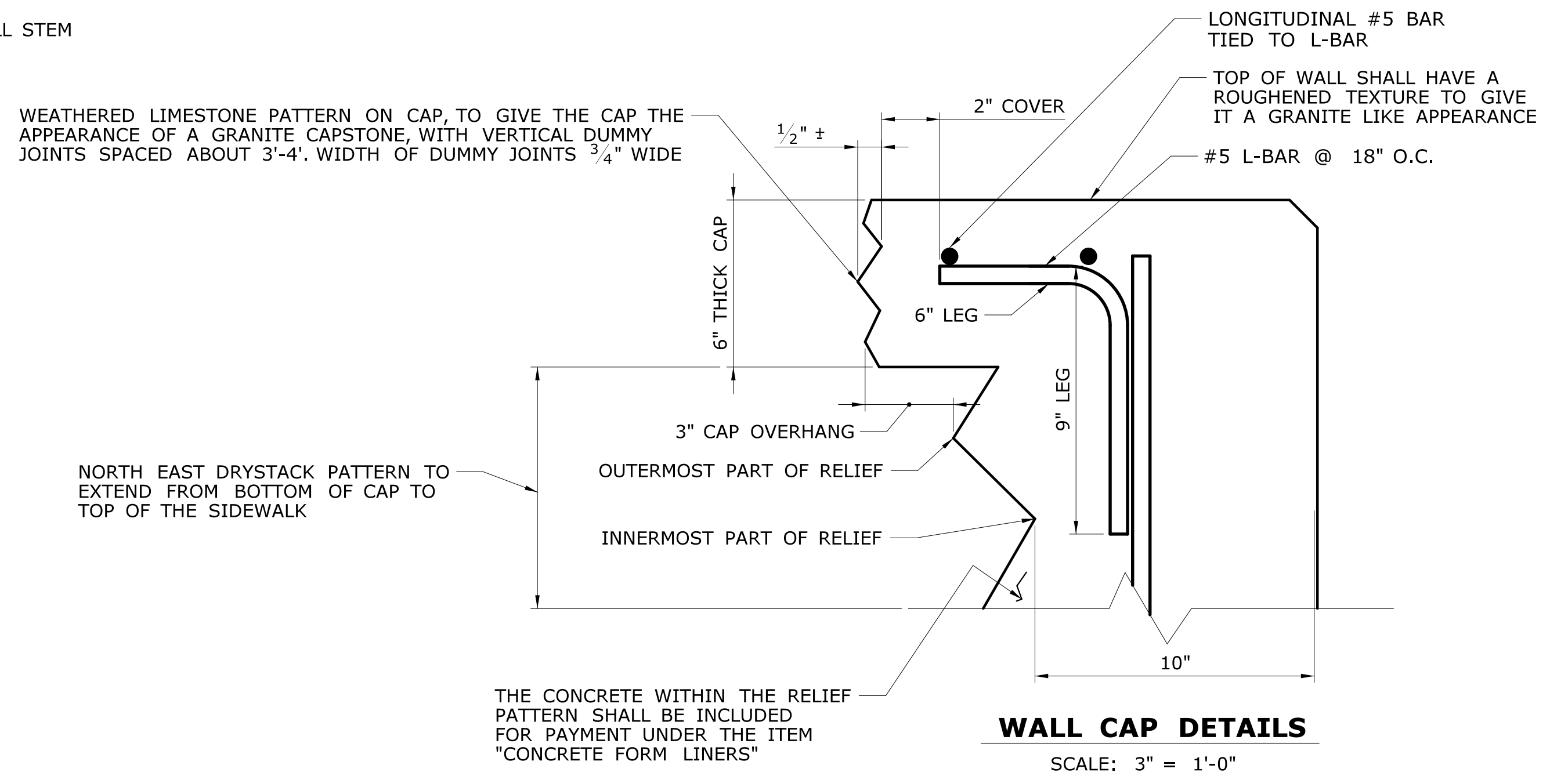
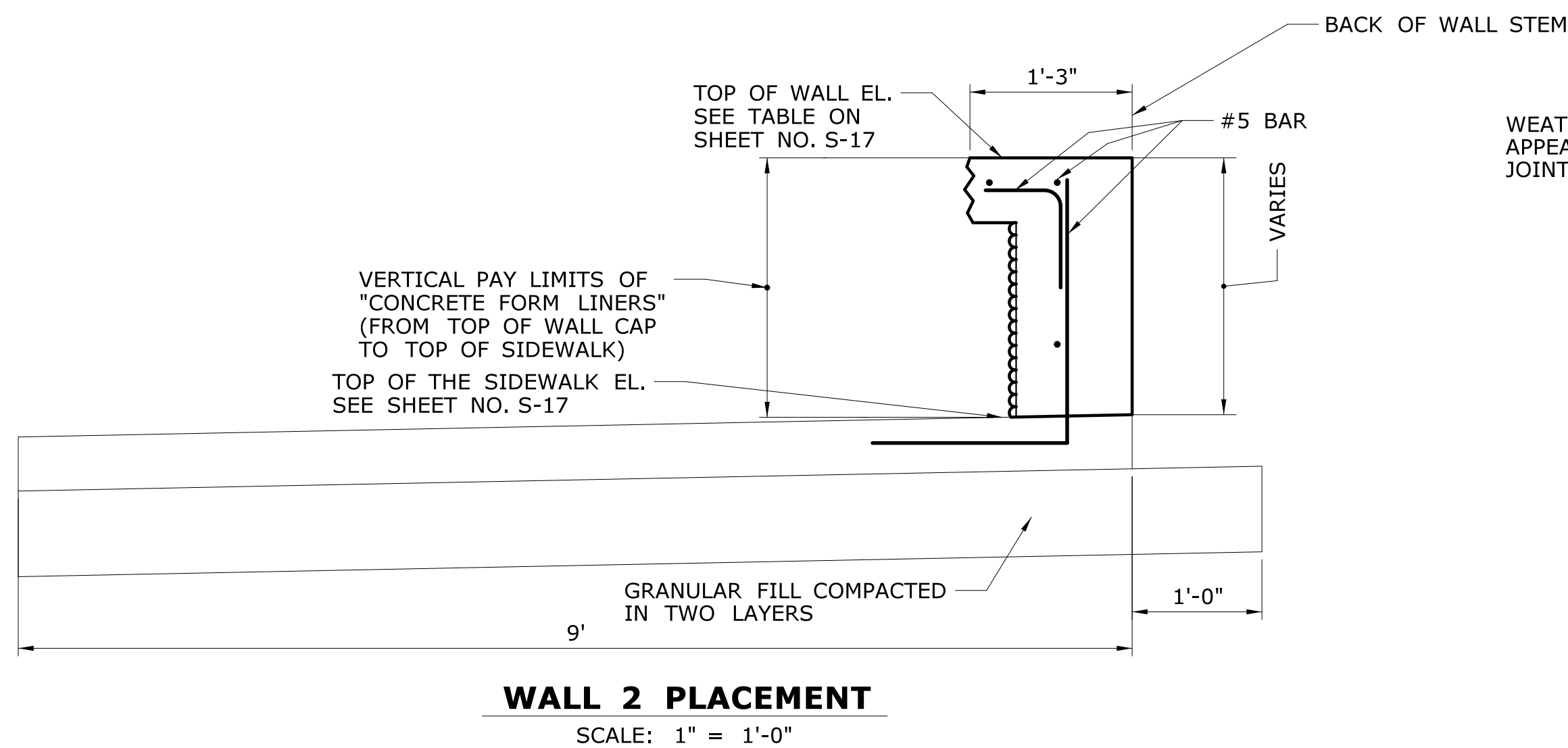
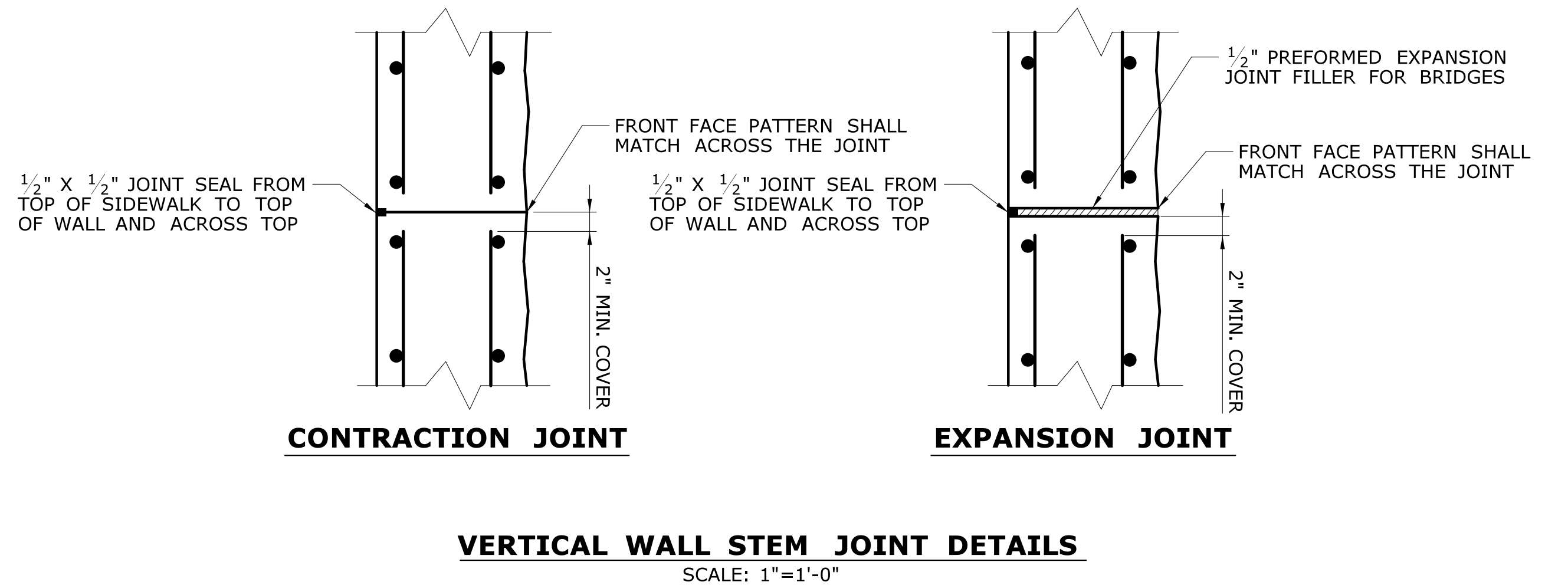
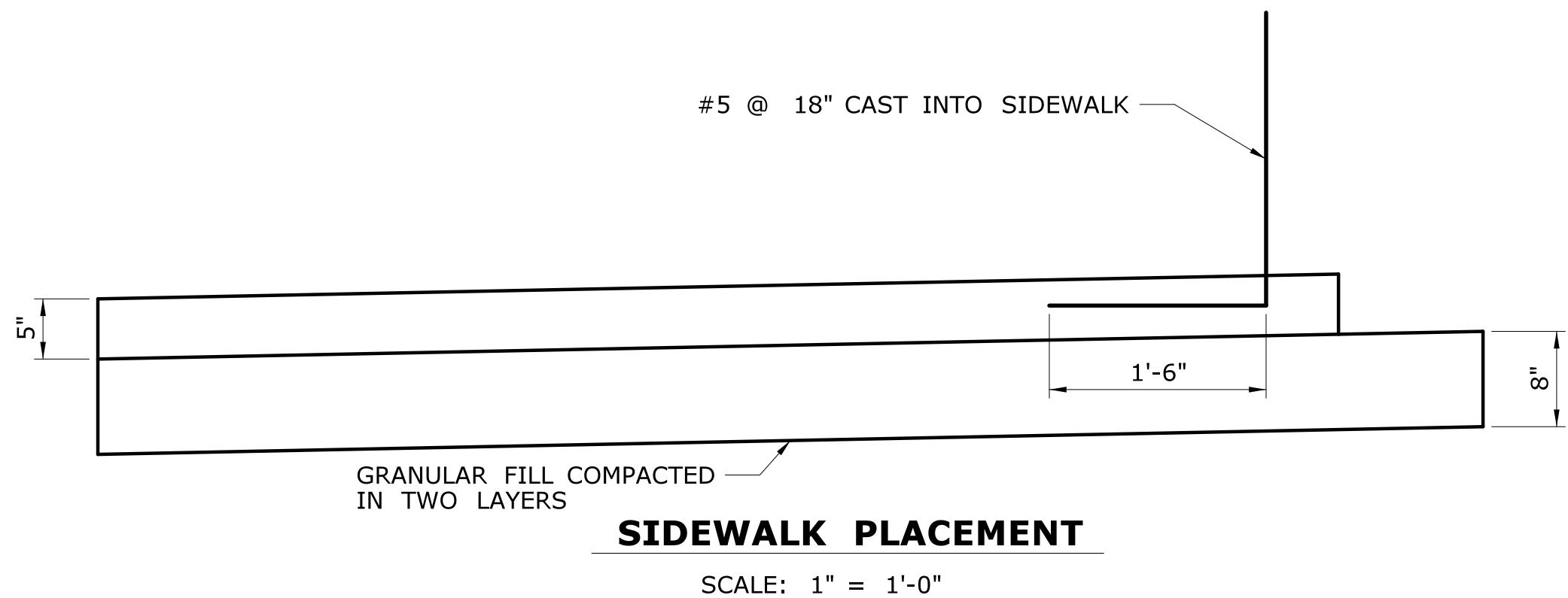
TOWN:
FARMINGTON
DRAWING TITLE:
GENERAL PLAN
RETAINING WALL 2

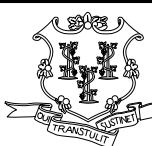
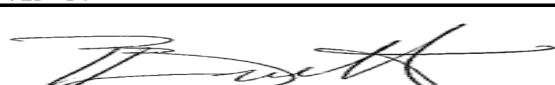
PROJECT NO.
51-260
DRAWING NO.
S-17
SHEET NO.
06.17

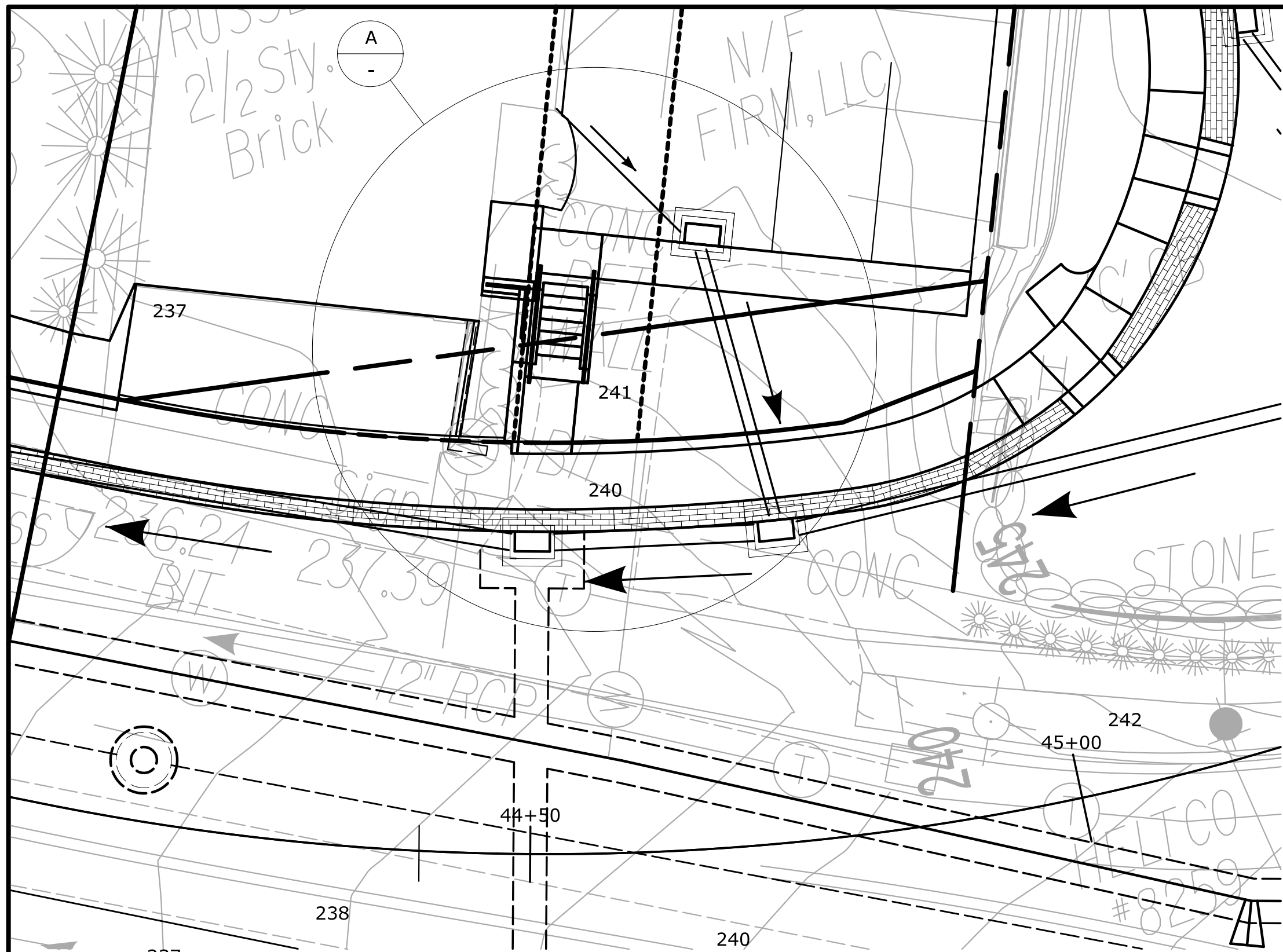


C=CONTRACTION JOINT IN WALL STEM
E=EXPANSION JOINT IN WALL STEM
FOR WALL STEM JOINT DETAILS SEE S-19

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: JJK CHECKED BY: RDD SCALE AS NOTED		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\SB_Wall2Details1.dgn		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 		PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.		TOWN: FARMINGTON DRAWING TITLE: RETAINING WALL 2 DETAILS-1		PROJECT NO. 51-260 DRAWING NO. S-18 SHEET NO. 06.18		
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 7/9/2015													



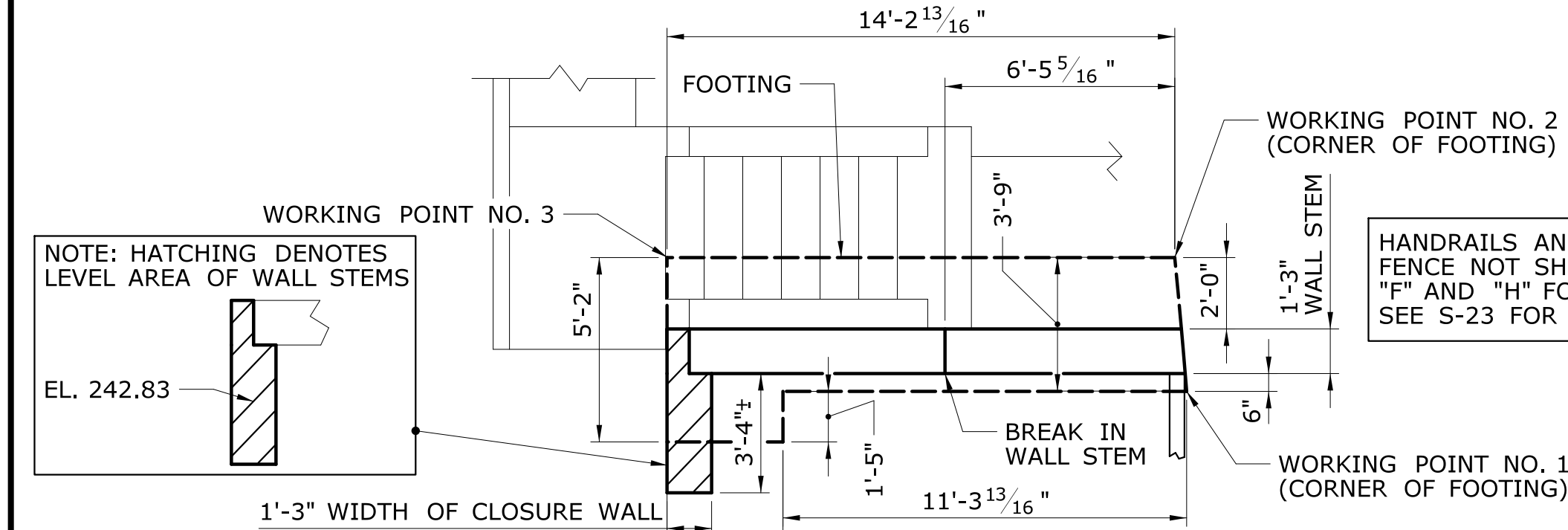
				DESIGNER/DRAFTER: JJK		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	PROJECT NO. 51-260			
				CHECKED BY: RDD							APPROVED BY: 	DRAWING TITLE: RETAINING WALL 2 DETAILS-2	DRAWING NO. S-19
				SCALE AS NOTED									
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015		Filename: ...\\Wall2-constructability.dgn							



PLAN VIEW OF WALL 3 AND STAIRCASE

SCALE: 1" = 10'

WORKING POINTS		
NUMBER	COORDINATES	
1	N825104.59	E980197.71
2	N825103.25	E980201.23
3	N825116.04	E980207.47



NOTE: HATCHING DENOTES
LEVEL AREA OF WALL STEMS

EL. 242.83

1'-3" WIDTH OF CLOSURE WALL

SCALE: 1/4"=1'-0"

VIEW F

INSTALL 5' HIGH DECORATIVE FENCE ON
CLOSURE WALL AND PORTION OF WALL 3
COLOR SHALL BE BLACK

1 1/2" DIAMETER METAL HAND RAIL
(GALV. SCHEDULE 40)

EL. 242.83

CLOSURE WALL

TEMPORARY EARTH RETAINING
SYSTEM (TERS). SEE SQUARE
FOOT PAY LIMITS THIS SHEET

EL. 237.5±

CONSTRUCT WALL 3
SEE S-21

EL. 230.00

SCALE: 1/4"=1'-0"

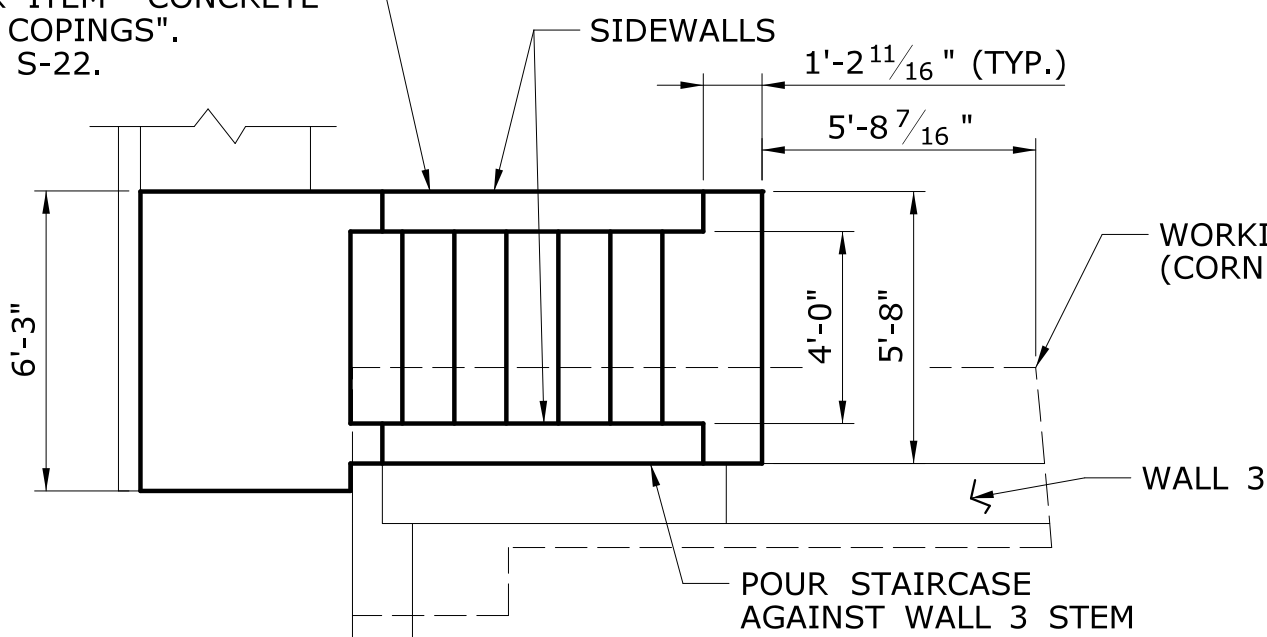
SECTION E

SCALE: 1/4"=1'-0"

SCALE: 1/4"=1'-0"

CONSTRUCT CONCRETE STAIRCASE
PAID FOR UNDER ITEM "CONCRETE
FOR STEPS AND COPINGS".
SEE DETAILS ON S-22.

HANDRAILS AND DECORATIVE
FENCE NOT SHOWN IN VIEWS
"F" AND "H" FOR CLARITY.
SEE S-23 FOR DETAILS



SCALE: 1/4"=1'-0"

VIEW H

TOP OF LANDING AND
SIDEWALLS EL. 242.83

1 1/2" DIAMETER METAL HAND RAIL
(GALV. SCHEDULE 40)

FINISH GRADE
BEHIND SIDEWALL

EL. 241.42

EL. 237.67

CONSTRUCT STAIRCASE

PERVIOUS STRUCTURE BACKFILL
UNDER STAIRCASE

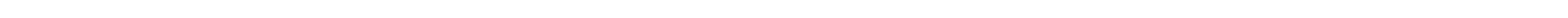
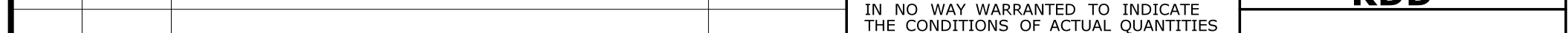
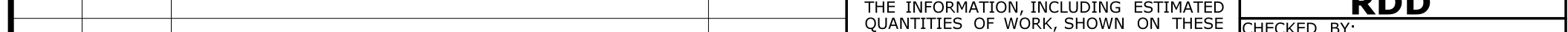
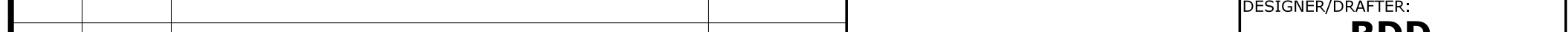
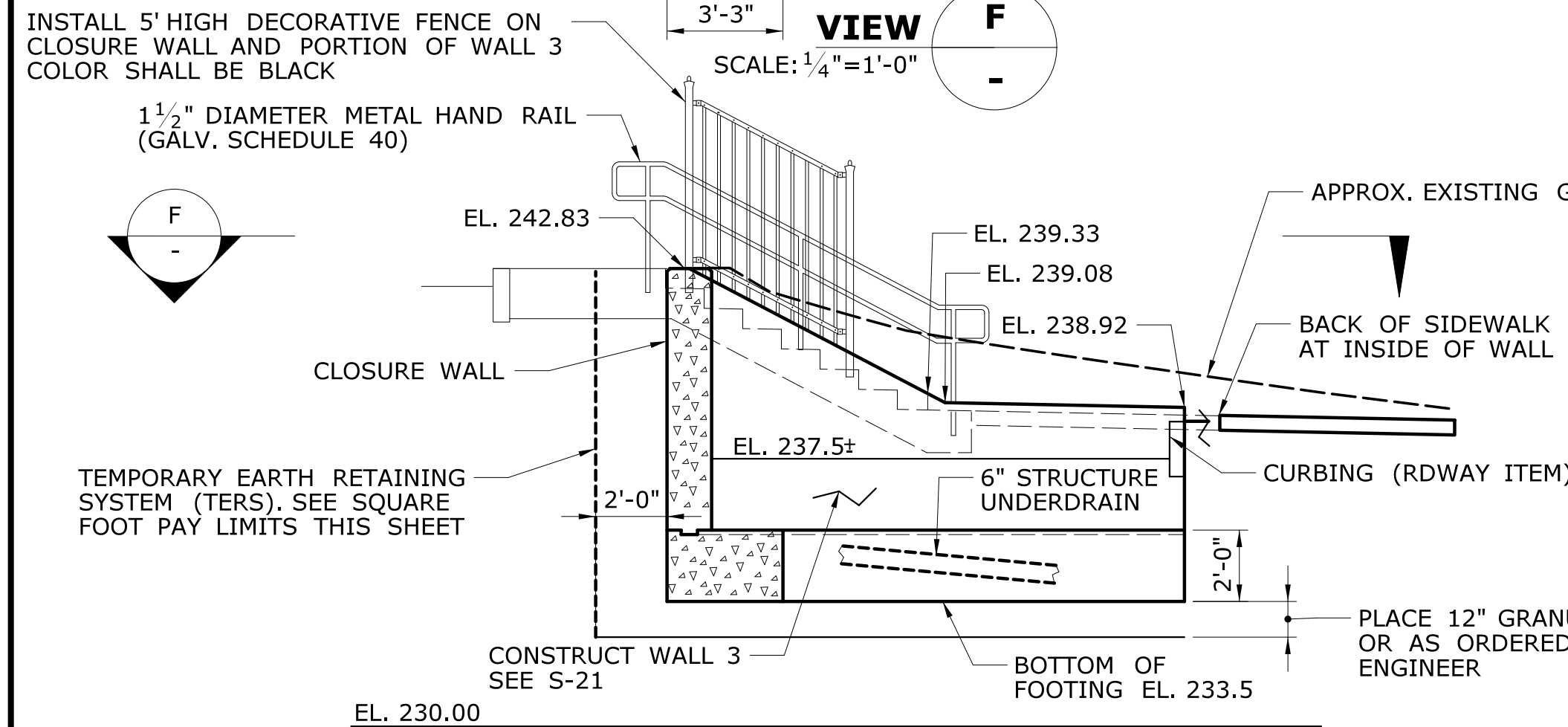
SCALE: 1/4"=1'-0"

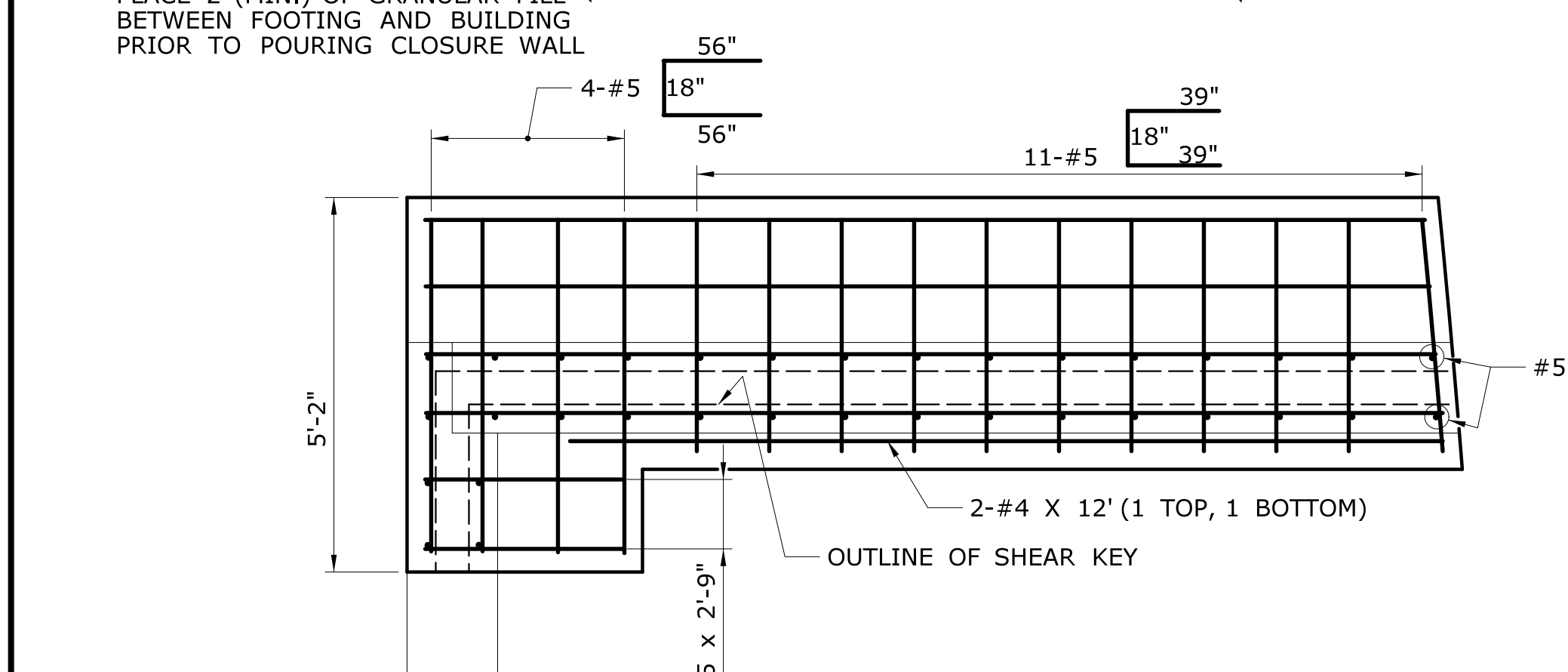
SECTION G

SCALE: 1/4"=1'-0"

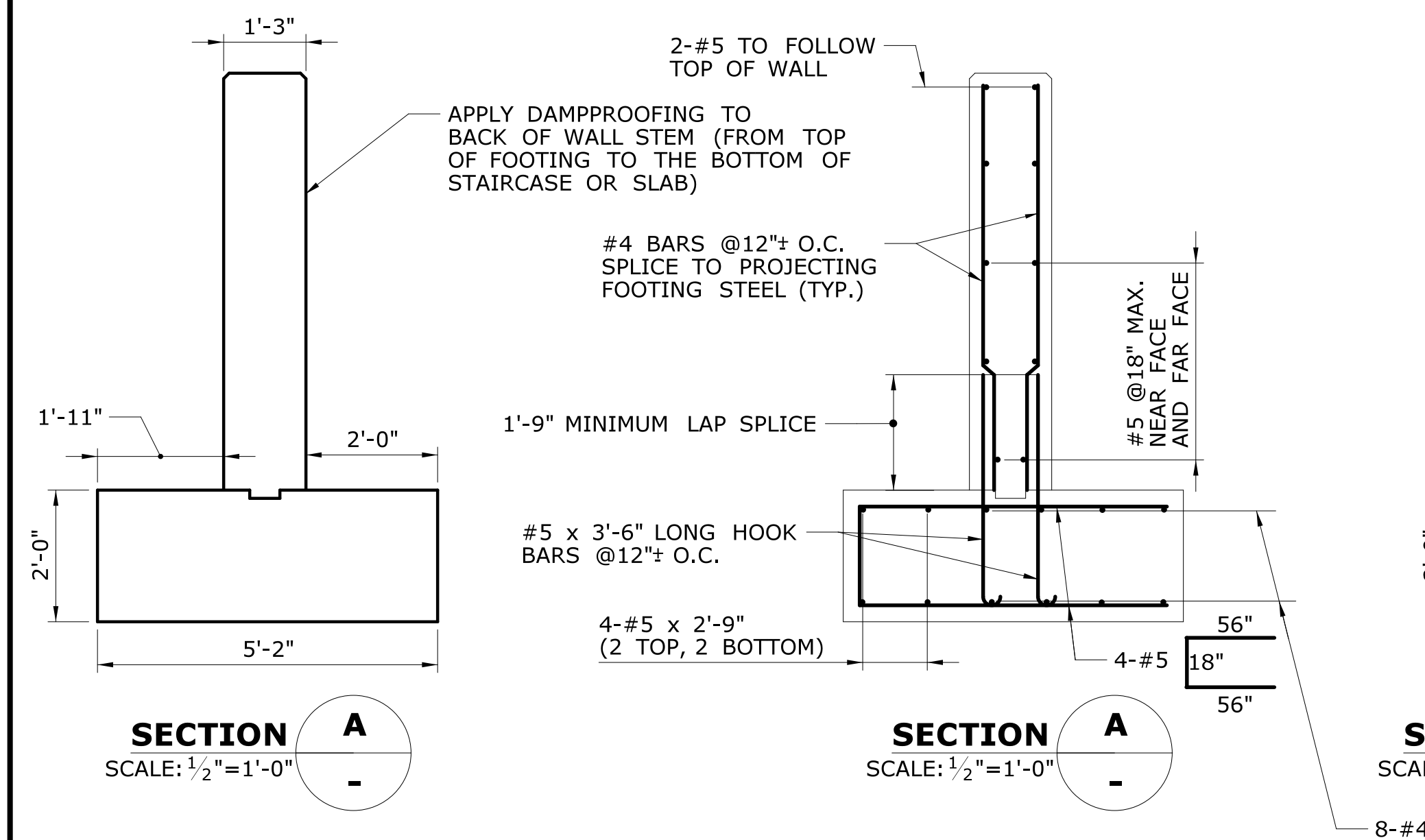
PLACE 12" GRANULAR FILL
OR AS ORDERED BY THE
ENGINEER

EL. 230.00

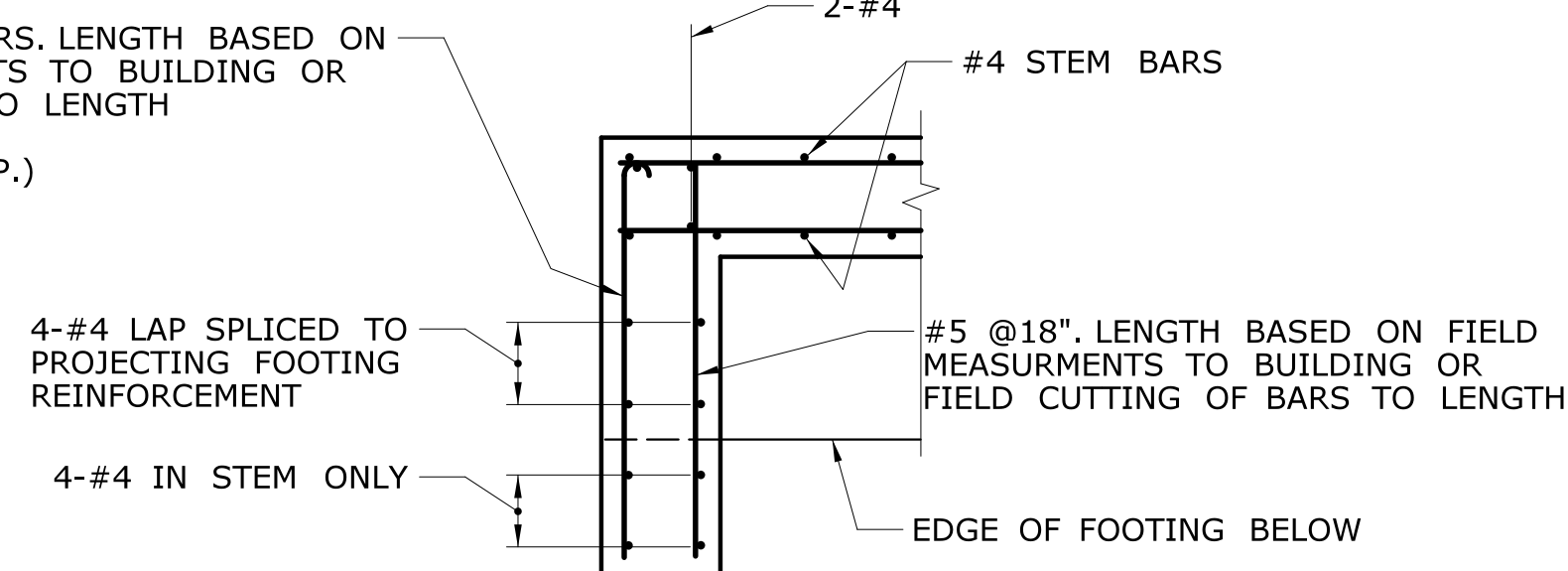




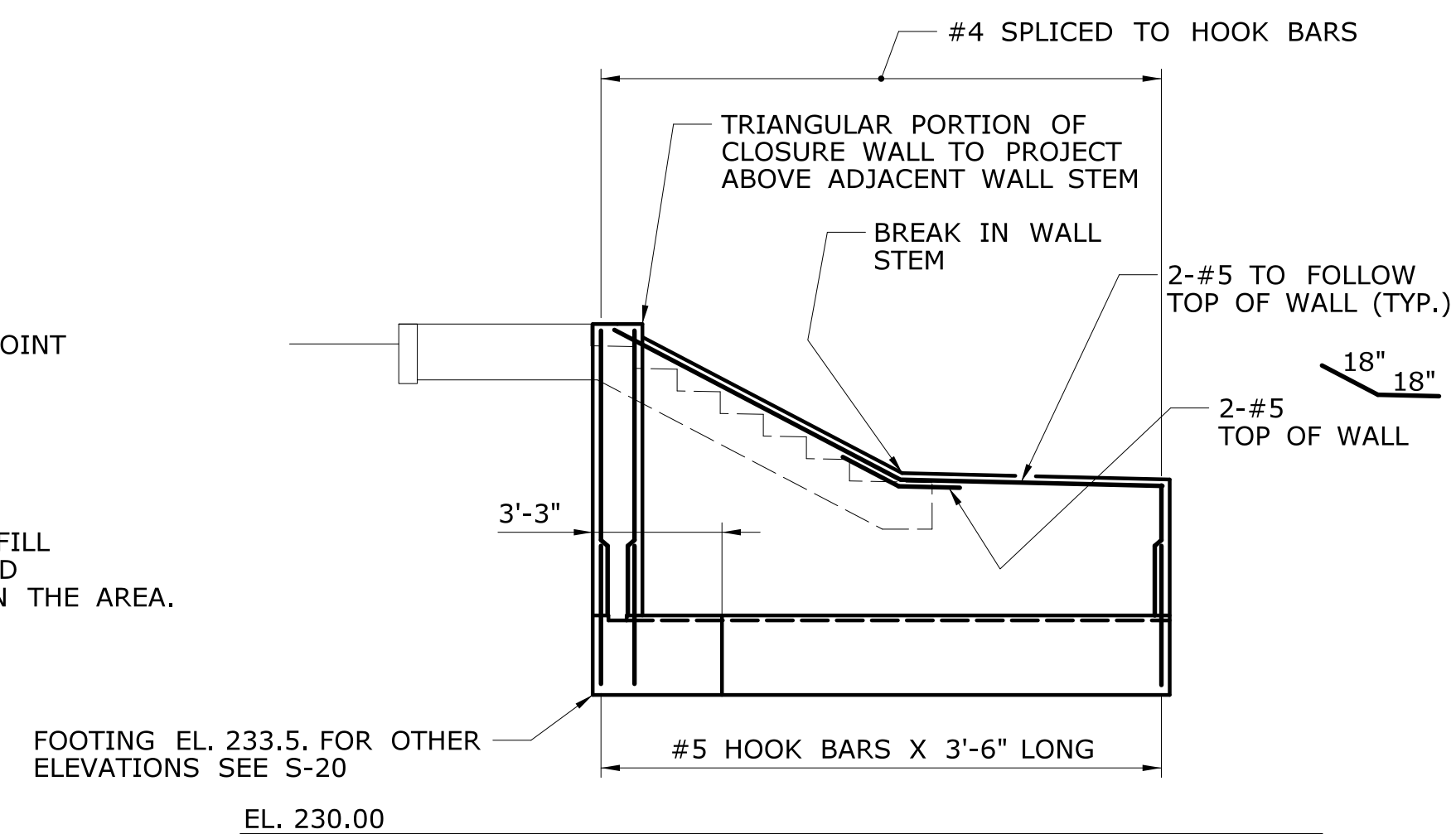
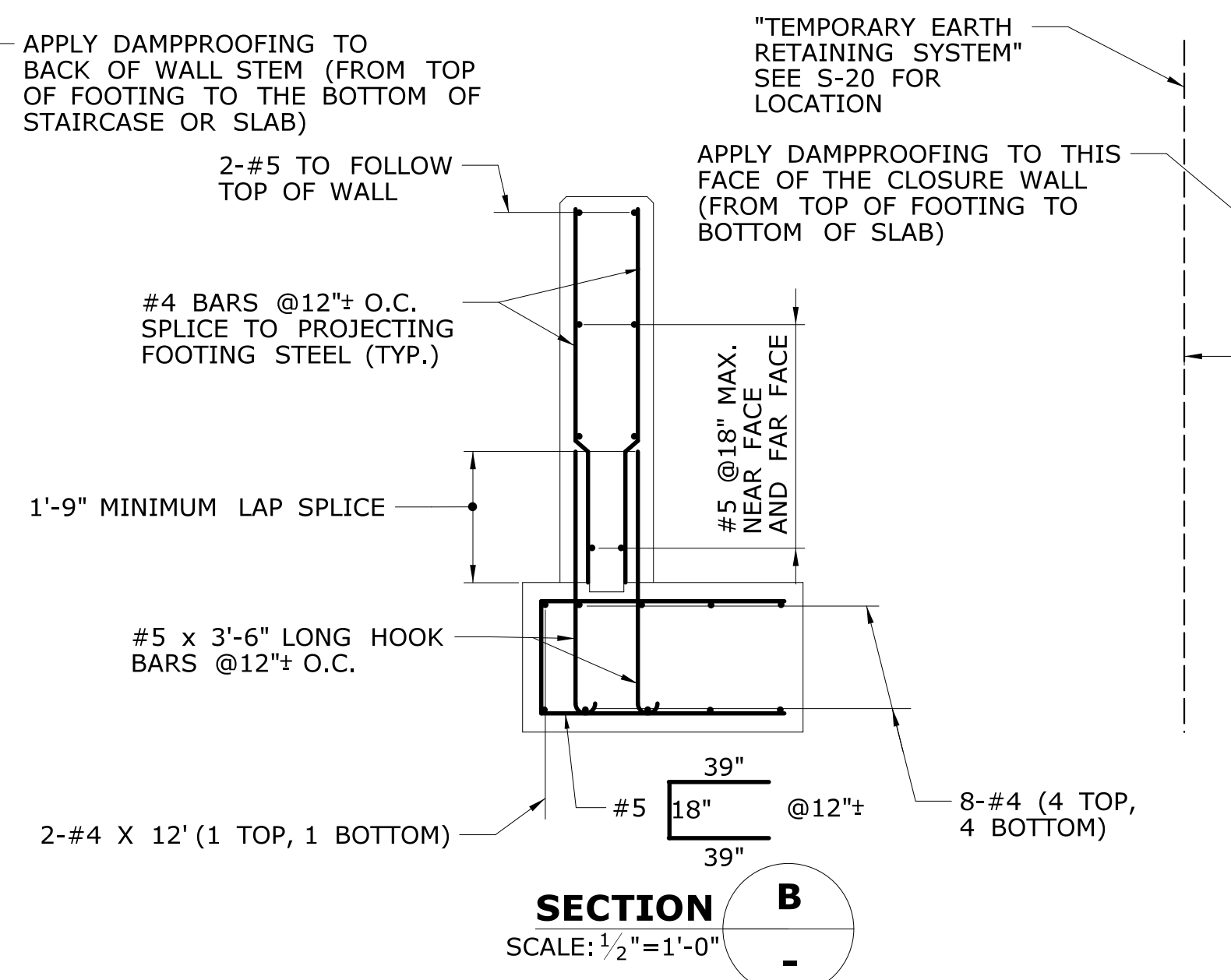
SCALE: $\frac{1}{2}" = 1'-0"$



SCALE: $\frac{1}{2}" = 1'-0"$

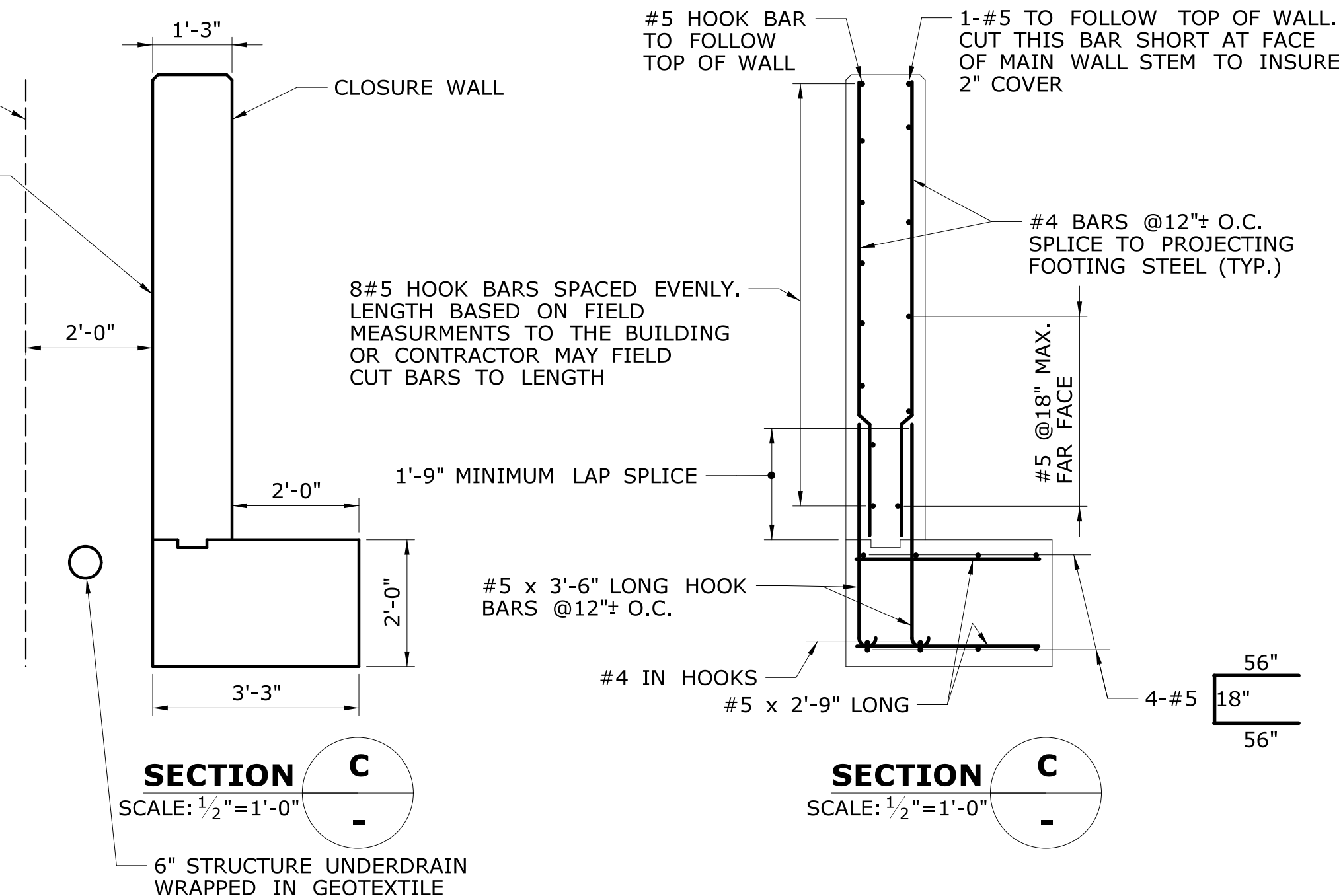


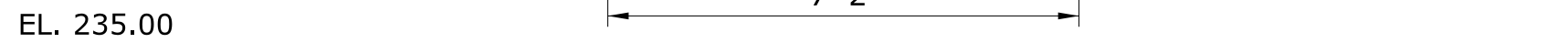
SCALE: $\frac{1}{2}" = 1'-0"$



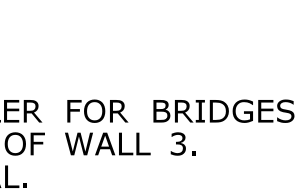
SCALE: $\frac{1}{4}" = 1'-0"$

NOTE: FOR ALL OTHER WALL REINFORCEMENT
SEE THE FOOTING PLAN AND THE CROSS
SECTIONS ON THIS SHEET.

[illegible]

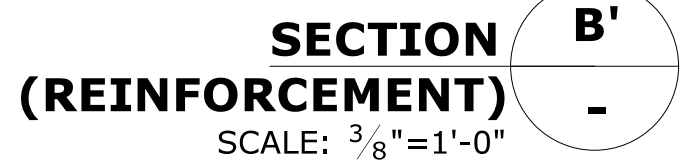


SECTION **B**
SCALE: $\frac{3}{8}" = 1'-0"$



PLAN VIEW OF STAIRCASE AT WALL 3

SCALE: $\frac{3}{8}" = 1'-0"$



SECTION (REINFORCEMENT) **B'**
SCALE: $\frac{3}{8}" = 1'-0"$
-



SIDEWALL REINFORCEMENT

SCALE: $\frac{3}{8}" = 1'-0"$



STAIRCASE REINFORCEMENT (BOTTOM)

SCALE: $\frac{3}{8}" = 1'-0"$



STAIRCASE REINFORCEMENT (TOP)

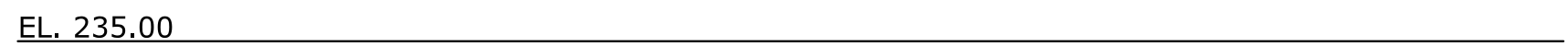
SCALE: $\frac{3}{8}" = 1'-0"$

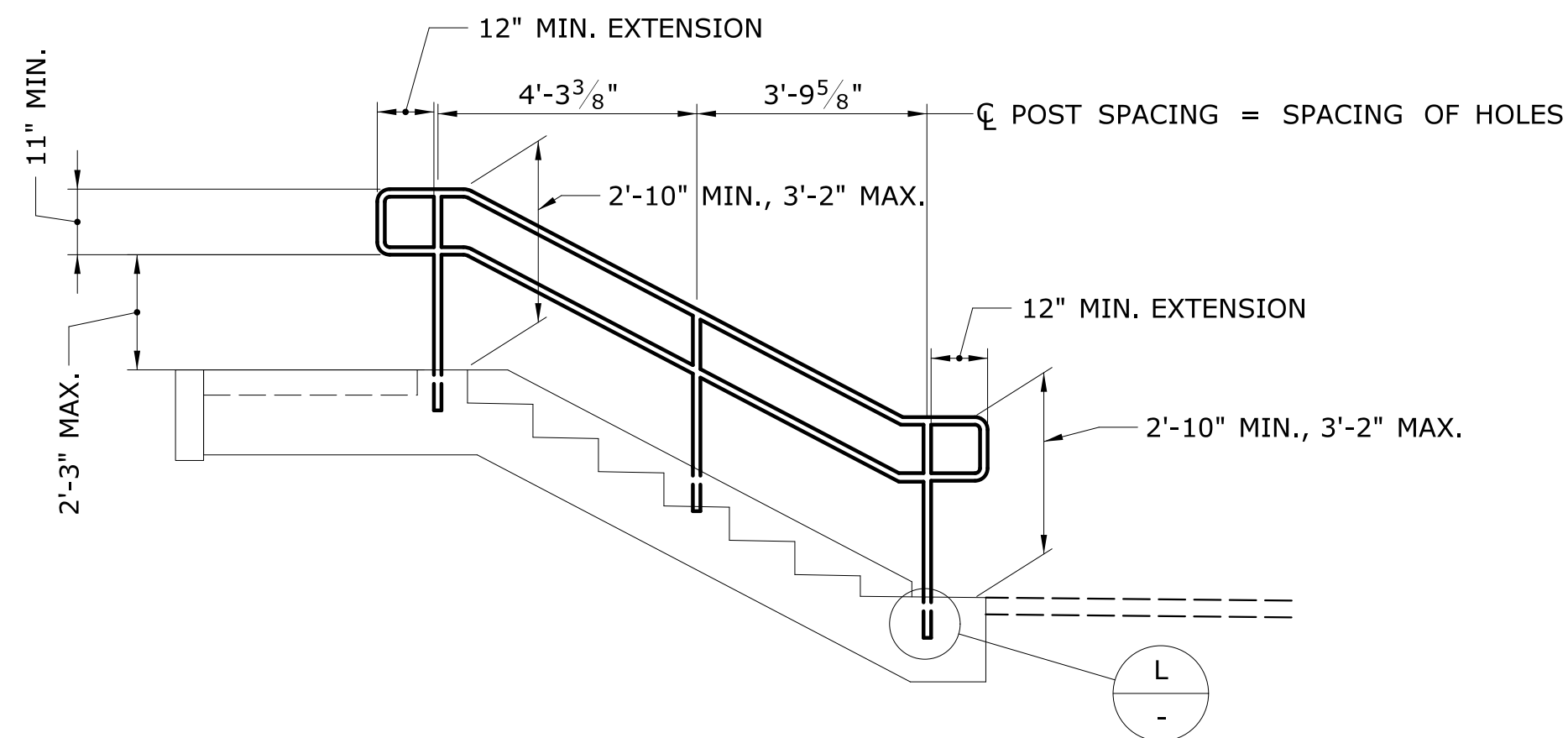
NOTE: ALL REINFORCEMENT ON THIS SHEET
(FOR THE STAIRCASE) SHALL BE GALVANIZED.
PAID FOR UNDER ITEM "DEFORMED STEEL BARS (GALVANIZED)"



TYPICAL STAIR DETAILS

SCALE: 1 1/2"=1'-0"

[illegible]



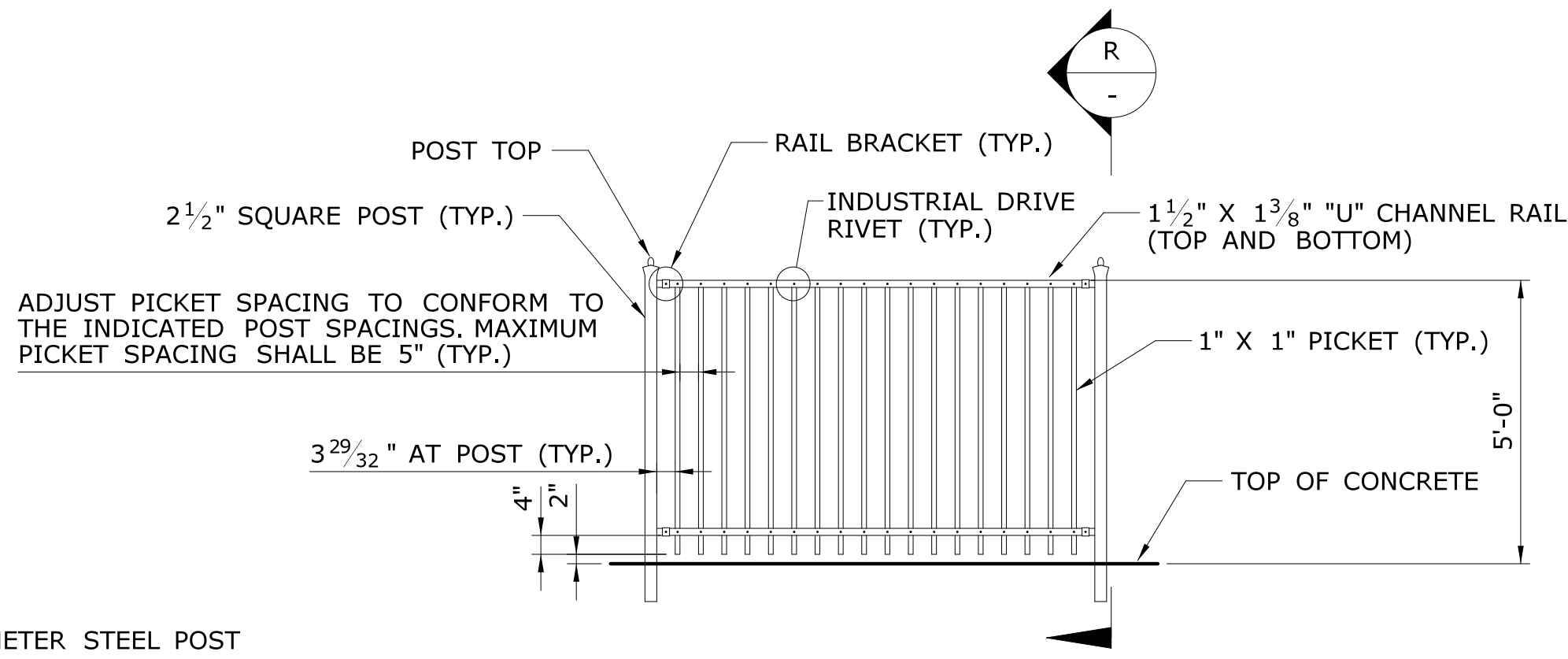
SECTION J
SCALE: 3/8"=1'-0"

NOTES

THE METAL HANDRAIL SHALL BE COMPOSED OF 1 1/2" NOMINAL OUTSIDE DIAMETER, SCHEDULE 40 PIPE. THE RAIL SYSTEM SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. ALL WELDS SHALL BE GROUND SMOOTH.

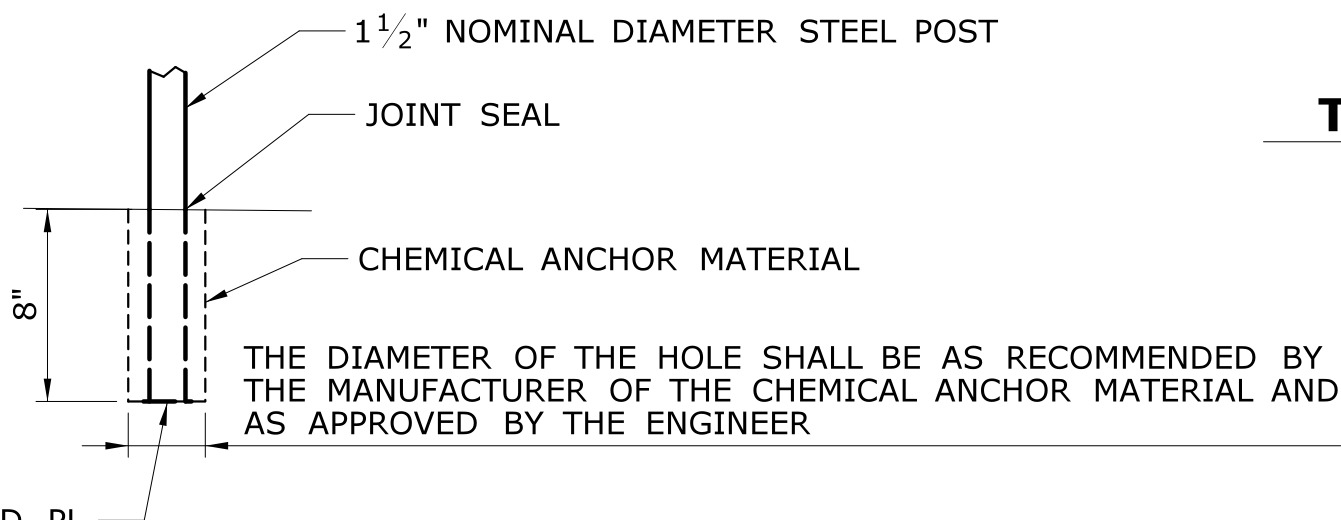
COST OF THE RAIL SYSTEMS INSTALLED ONTO THE CONCRETE SIDEWALLS SHALL BE PAID FOR UNDER ITEM "METAL HANDRAIL"

COST OF THE FENCING INSTALLED ONTO WALL NO. 3 SHALL BE PAID FOR UNDER ITEM "DECORATIVE FENCE"

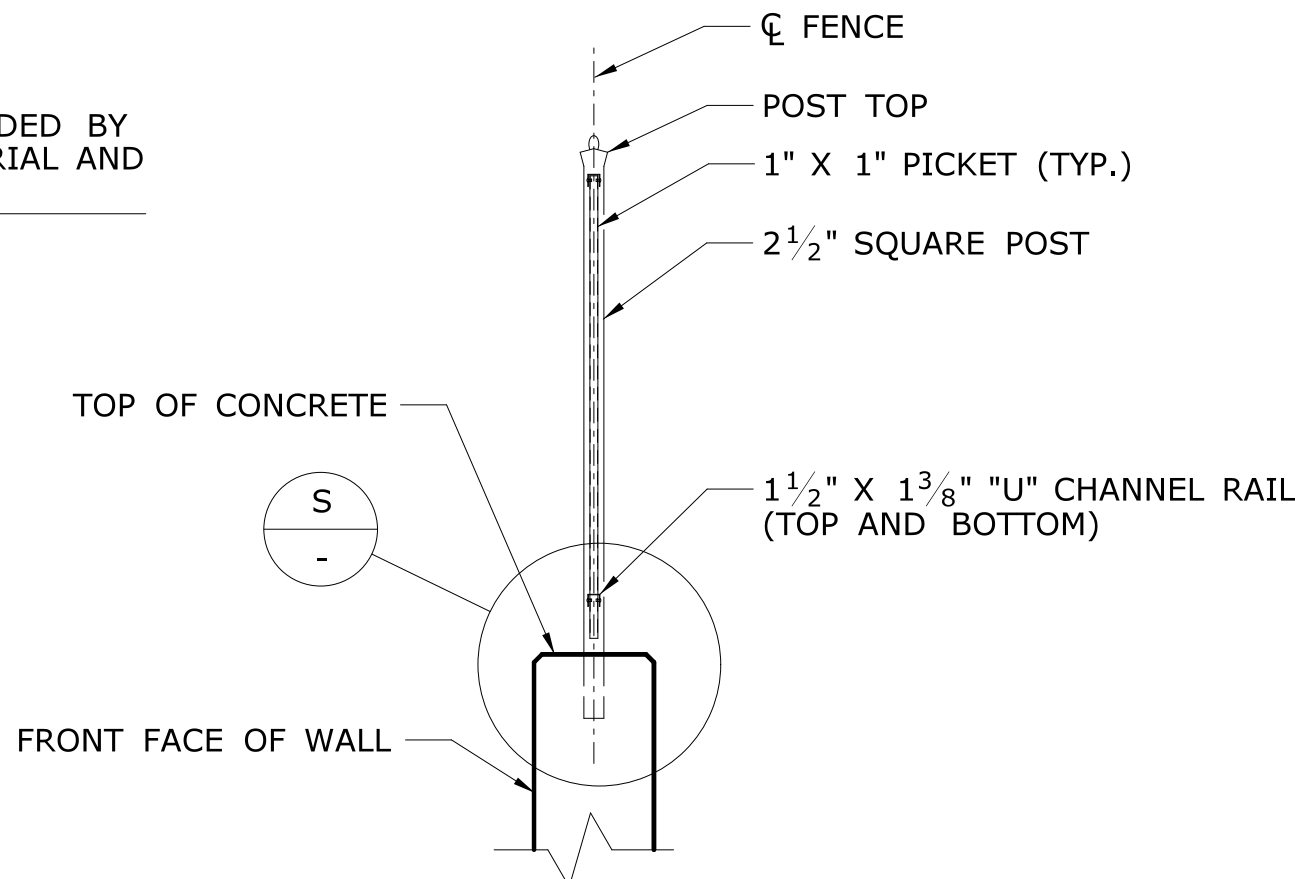


TYPICAL DECORATIVE FENCE PANEL

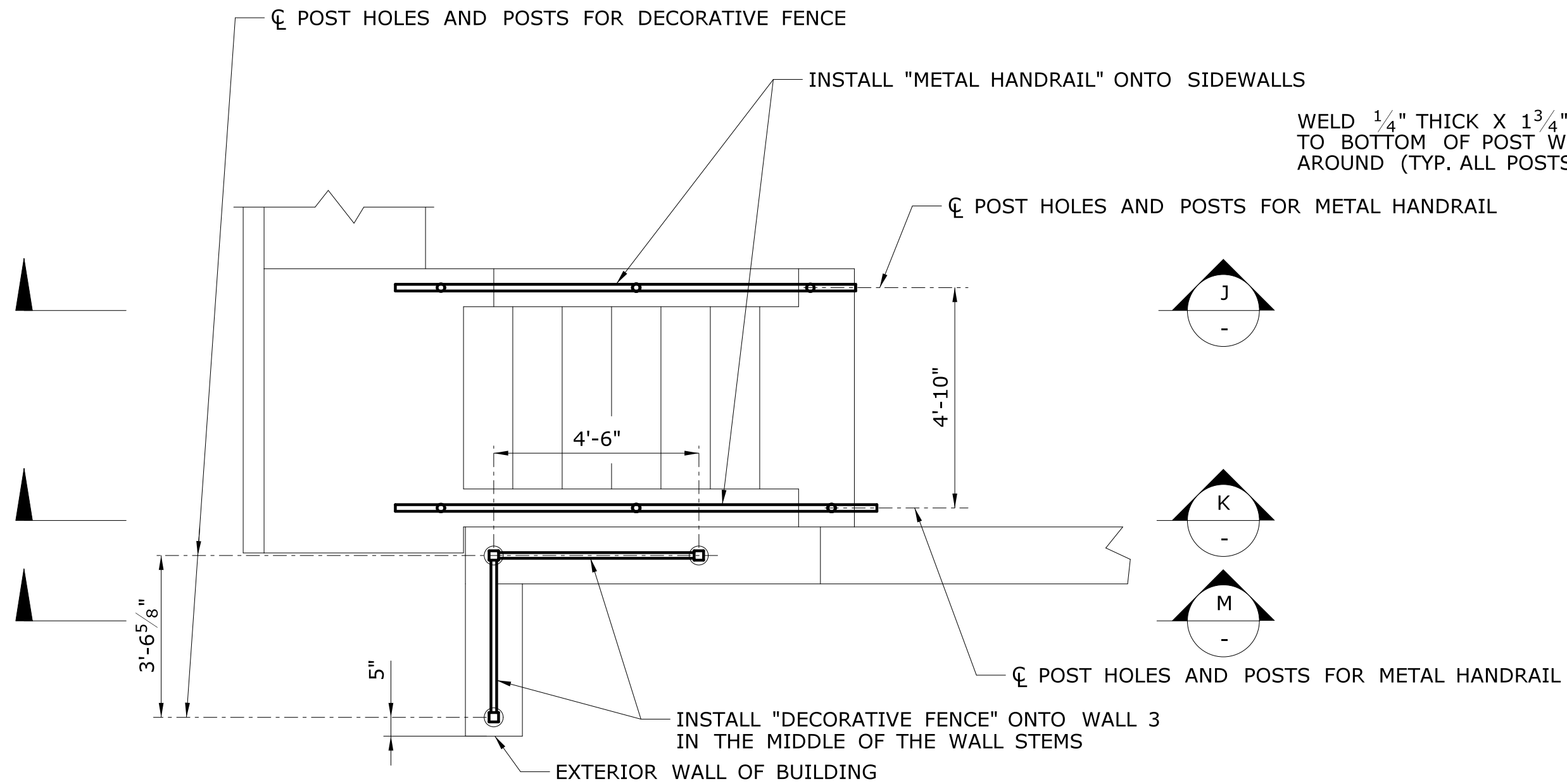
SCALE: 3/8" = 1'-0"



DETAIL L
SCALE: 1 1/2"=1'-0"

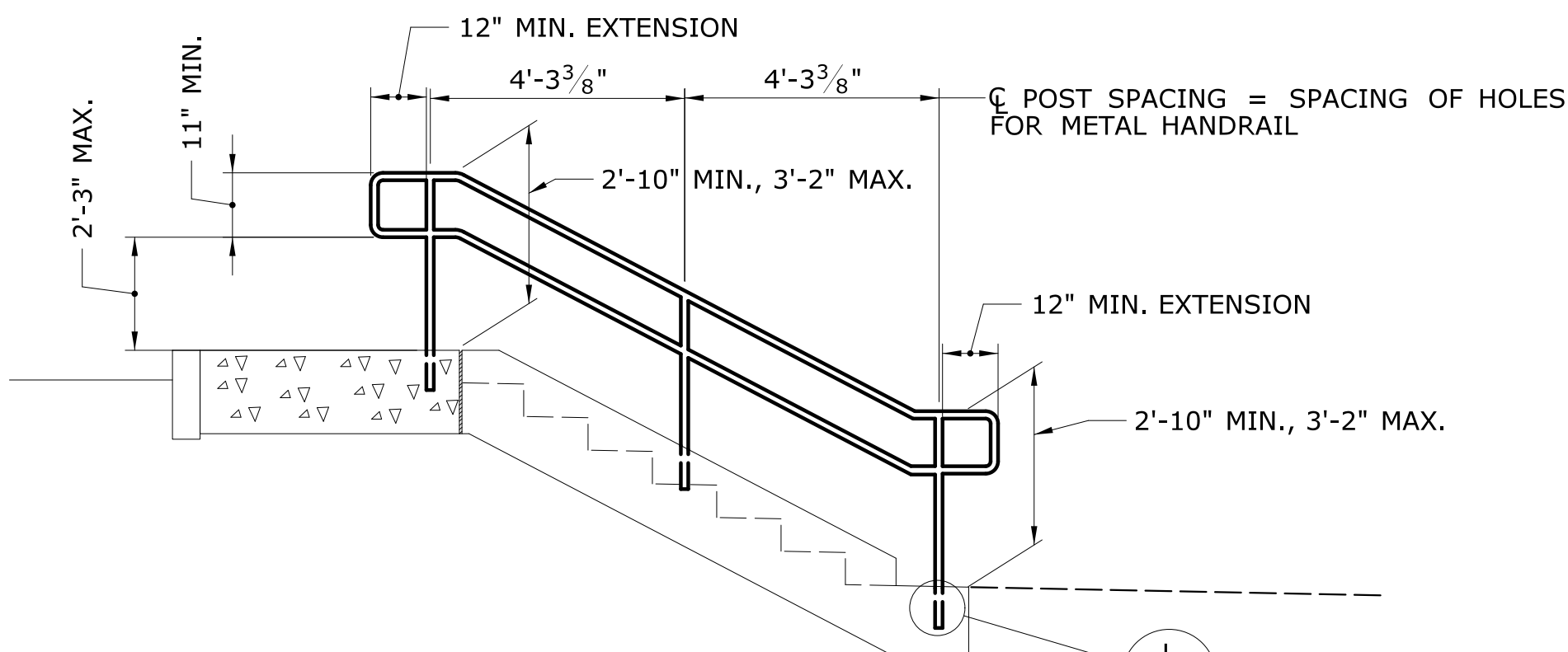


VIEW R
SCALE: 1/2" = 1'-0"

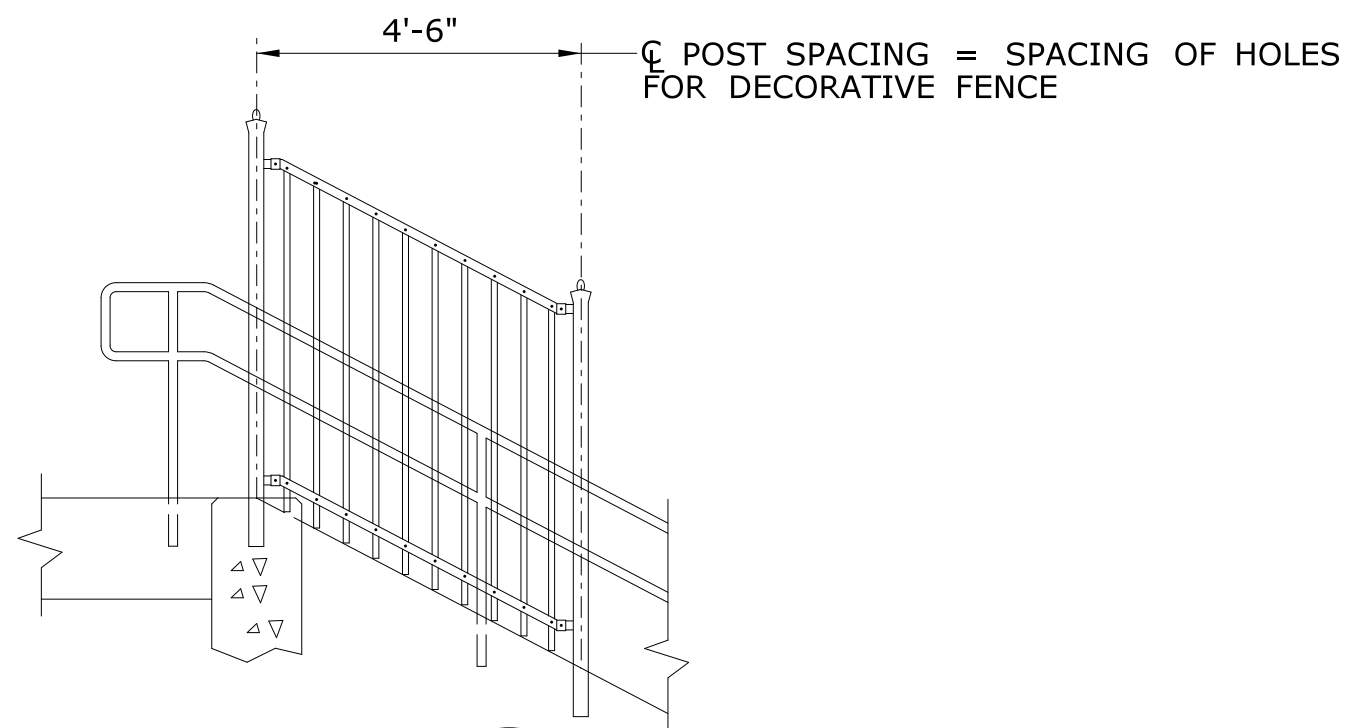


PLAN VIEW OF STAIRCASE AT WALL 3

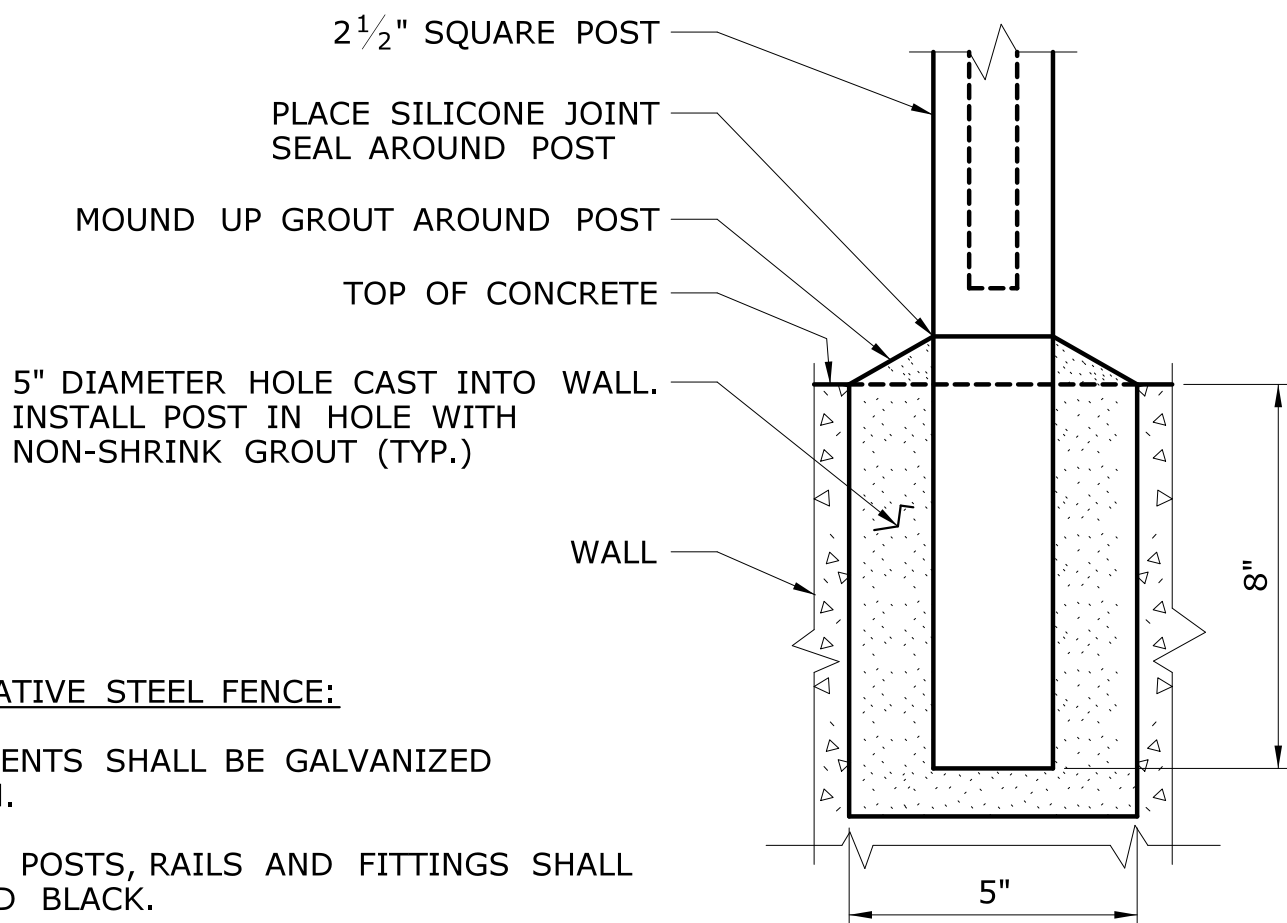
SCALE: 3/8" = 1'-0"



SECTION K
SCALE: 3/8"=1'-0"



SECTION M
SCALE: 3/8"=1'-0"



DETAIL S
NTS



NOTES FOR DECORATIVE STEEL FENCE:

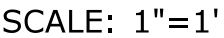
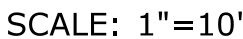
THE STEEL COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION.

THE COLOR OF THE POSTS, RAILS AND FITTINGS SHALL BE POWDER COATED BLACK.

ALL POSTS SHALL BE INSTALLED PLUMB.

ALL RAILS SHALL BE PARALLEL TO THE TOP OF THE WALL.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015	DESIGNER/DRAFTER: BU	CHECKED BY: RDD	SCALE AS NOTED	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\Metal Handrail and Decorative Fences.dgn	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	DRAWING TITLE: METAL HANDRAIL AND DECORATIVE FENCE	PROJECT NO. 51-260 DRAWING NO. S-23 SHEET NO. 06.23
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NOTES: ALL WORK ON THIS SHEET WITHIN THE LUMP SUM LIMITS INCLUDING EXCAVATION FOR THE WALL, (WITH THE EXCEPTION OF ANY ROCK EXCAVATION) SHALL BE PAID UNDER THE ITEM "EMBANKMENT WALL (SITE NO. 4)".

GENERAL NOTES FOR EMBANKMENT WALL (SITE NO.4)

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION
FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS THERETO DATED
JANUARY 2015 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND LATEST INTERIMS PUBLISHED EXCEPT AS NOTED OTHERWISE HEREIN, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL - 2003.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED
1" x 1" UNLESS DIMENSIONED OTHERWISE.

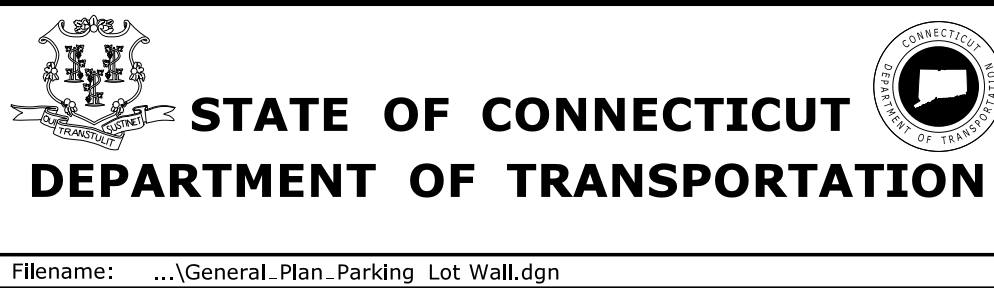
DIMENSIONS AND ELEVATIONS: ALL DIMENSIONS ARE GIVEN IN FEET UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE GIVEN IN FEET. WHEN DIMENSIONS OR ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/9/2015

DESIGNER/DRAFTER:	BU
CHECKED BY:	RDD
SCALE AS NOTED	



SIGNATURE/
BLOCK:

OFFICE OF ENGINEERING

APPROVED BY:

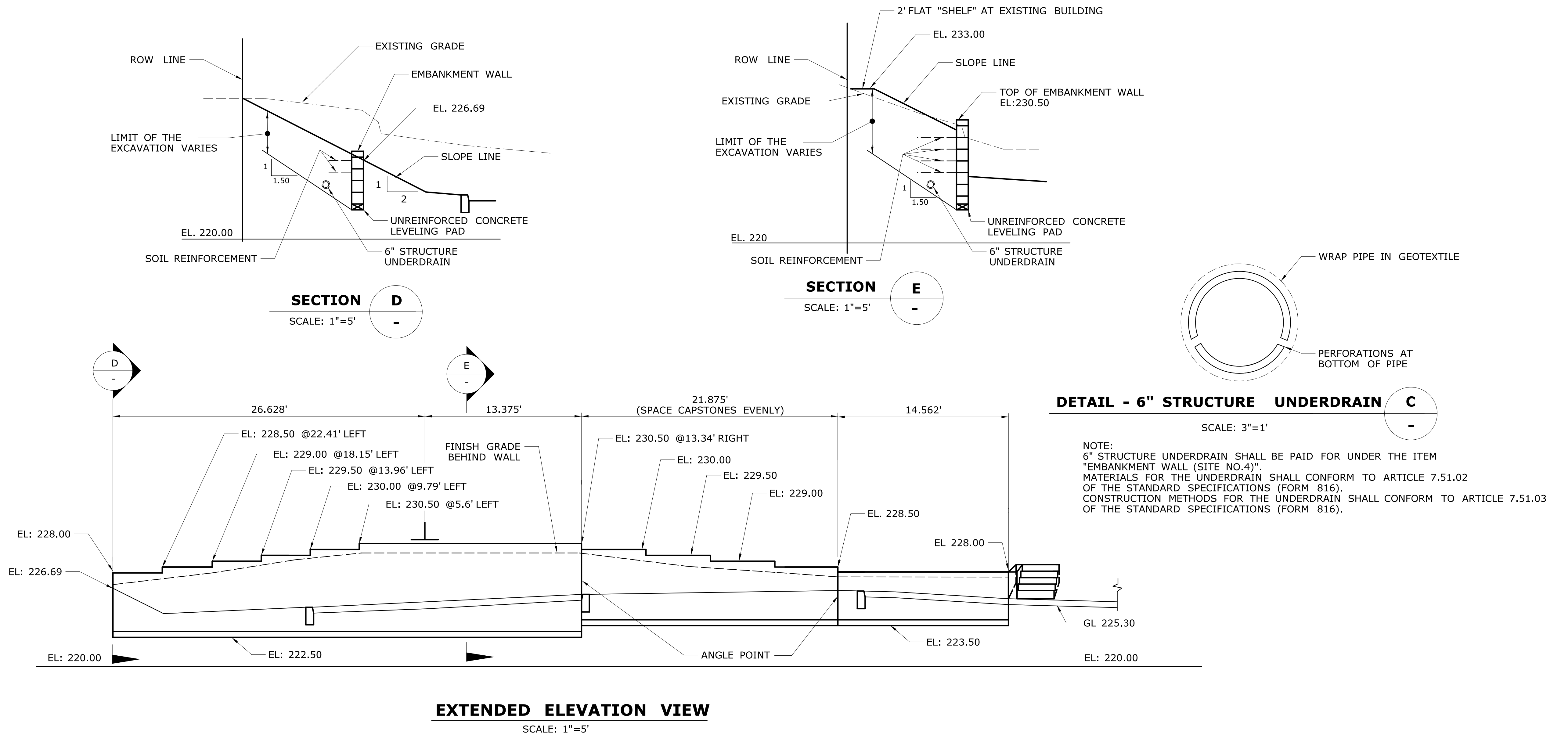
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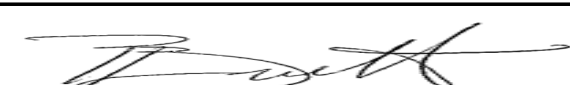
**SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.**

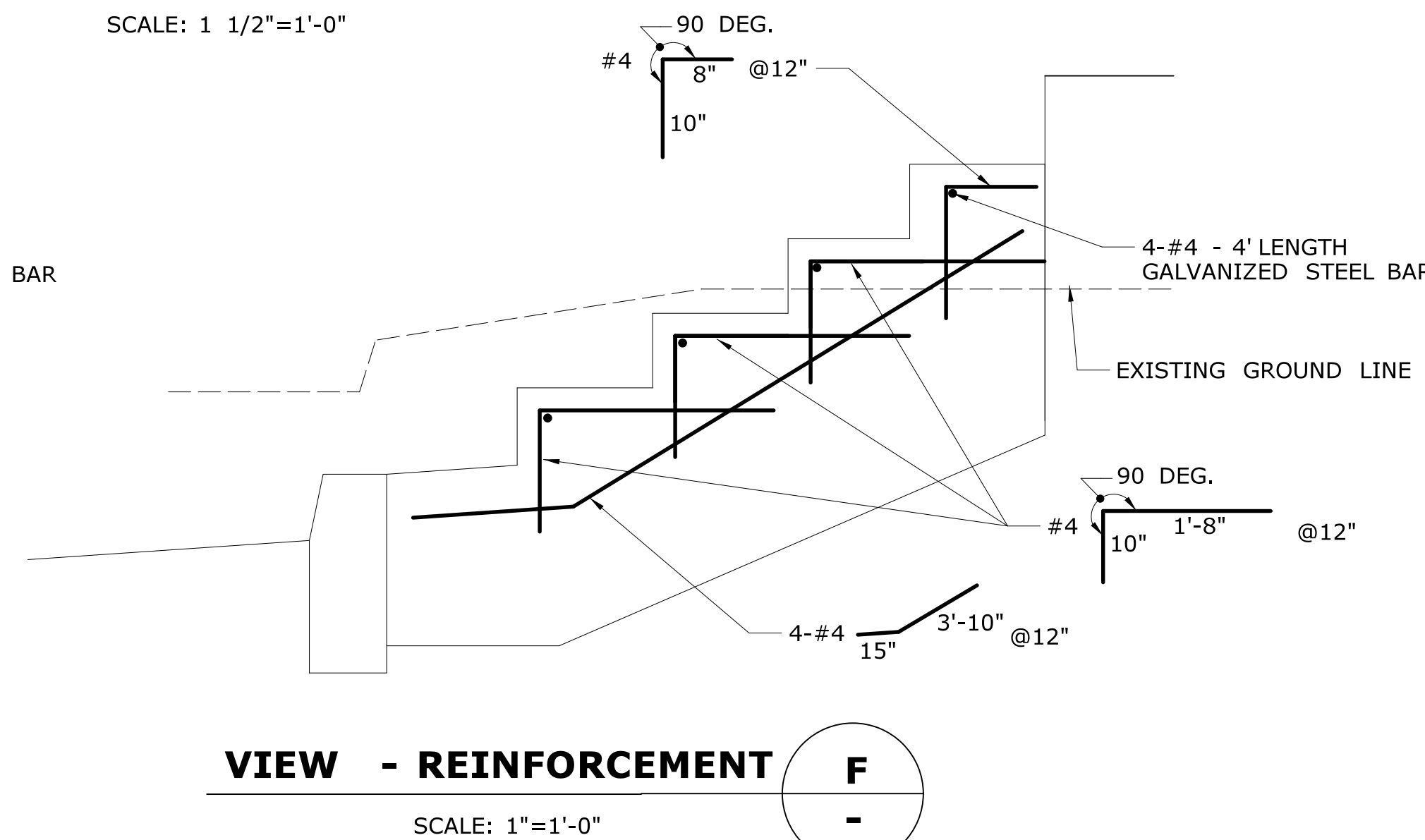
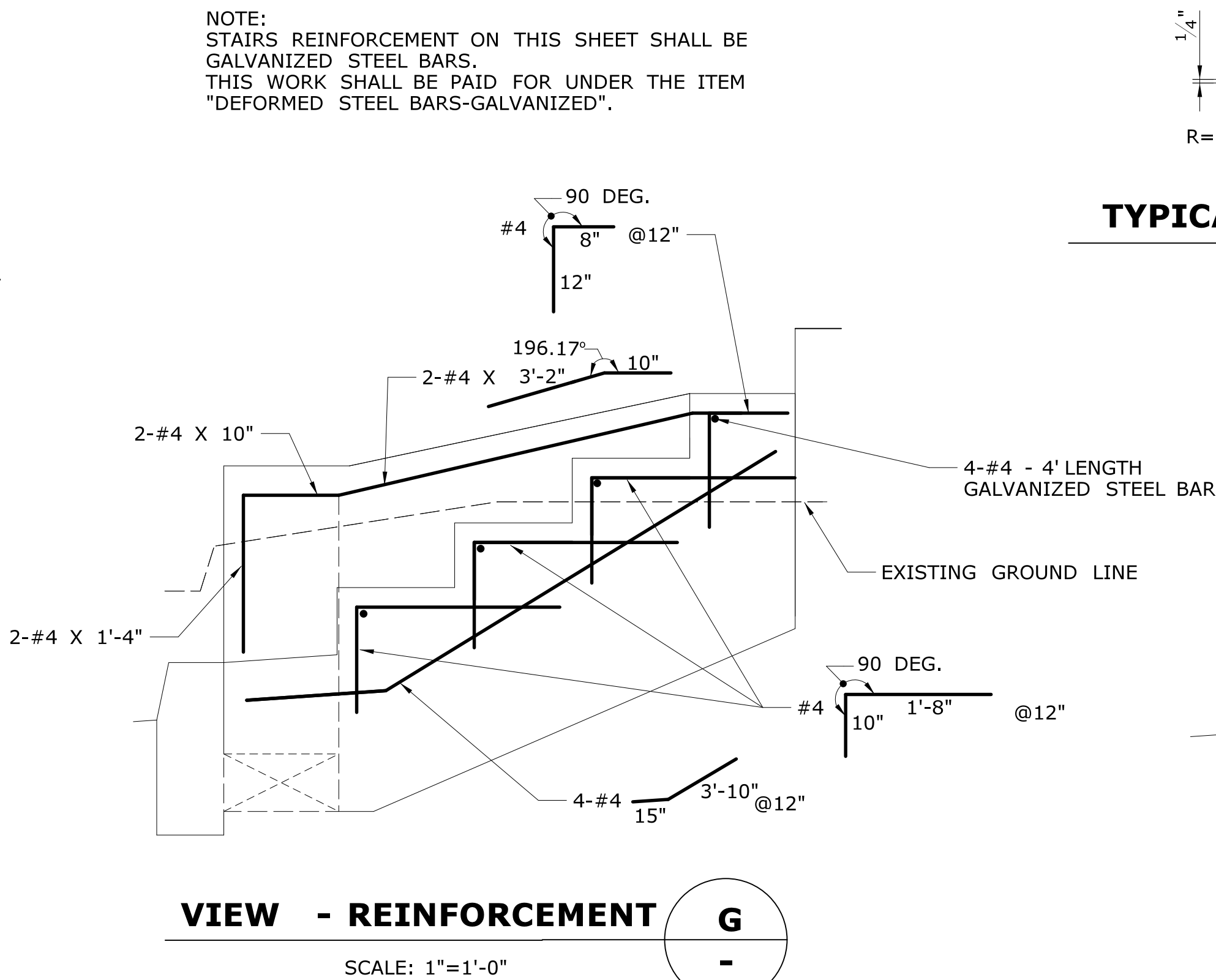
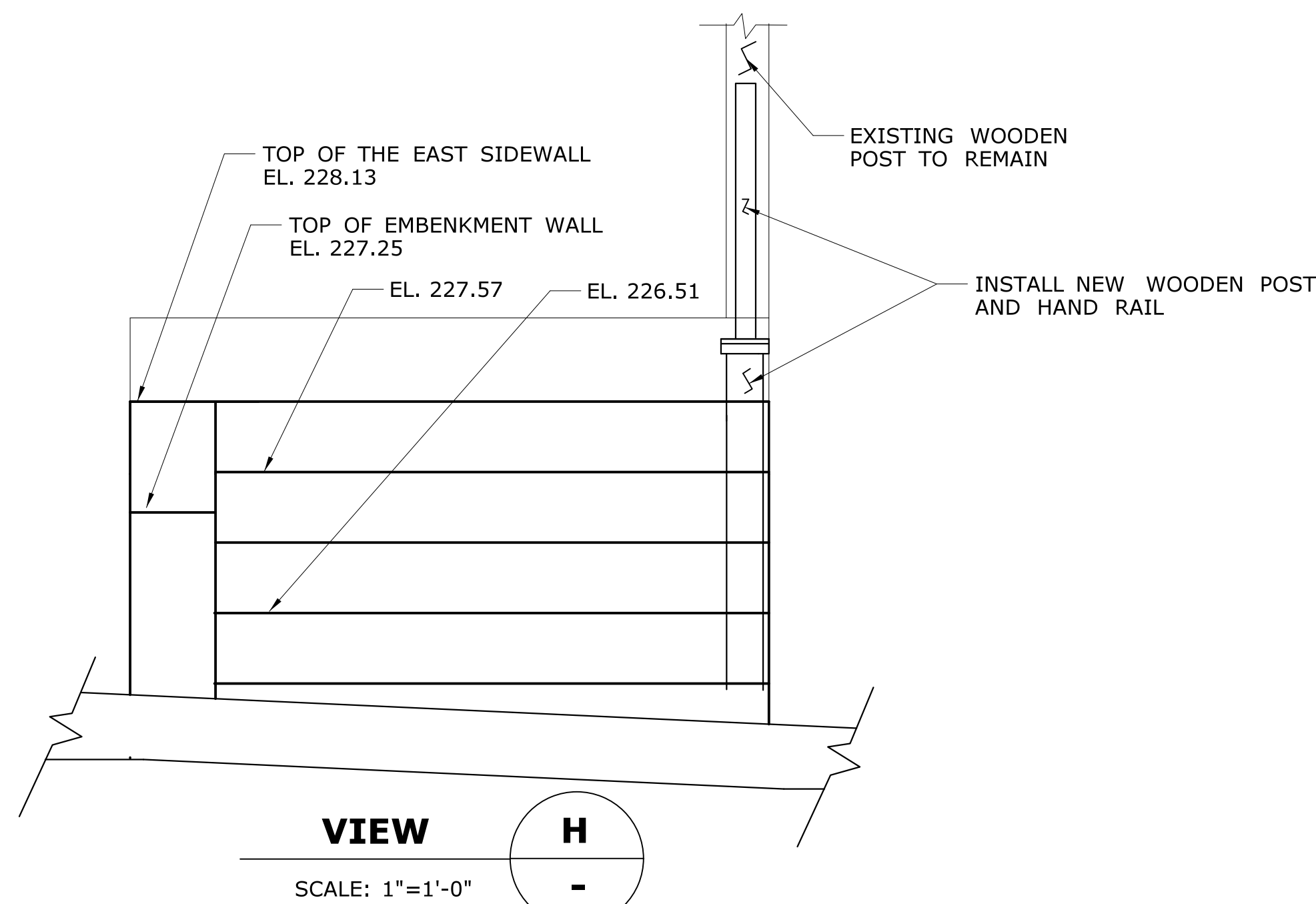
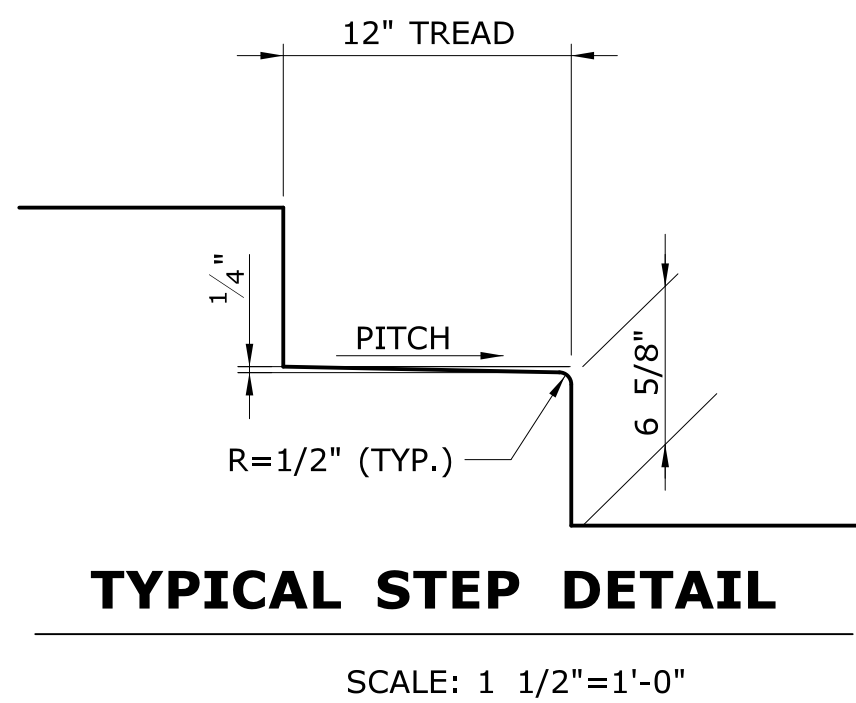
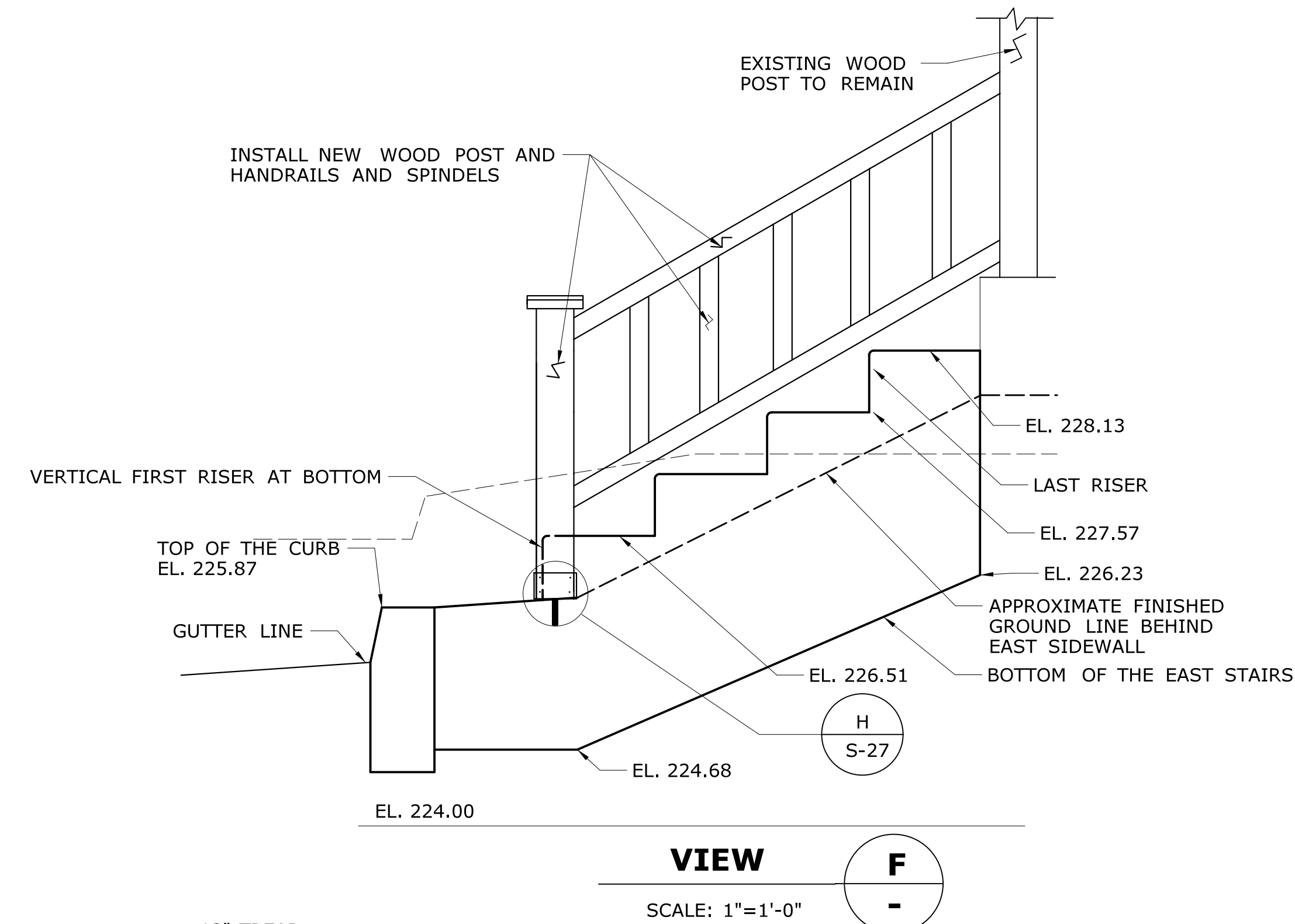
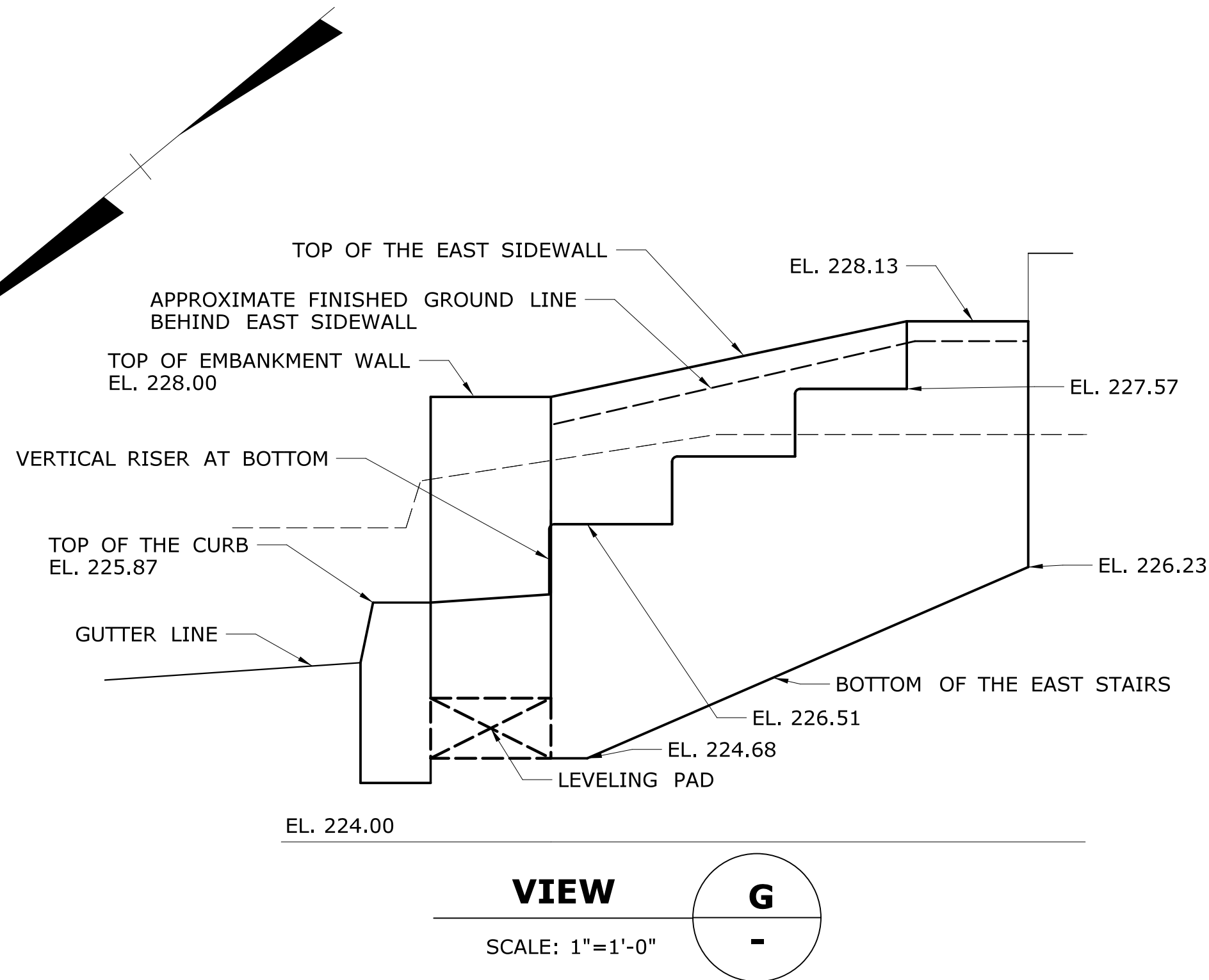
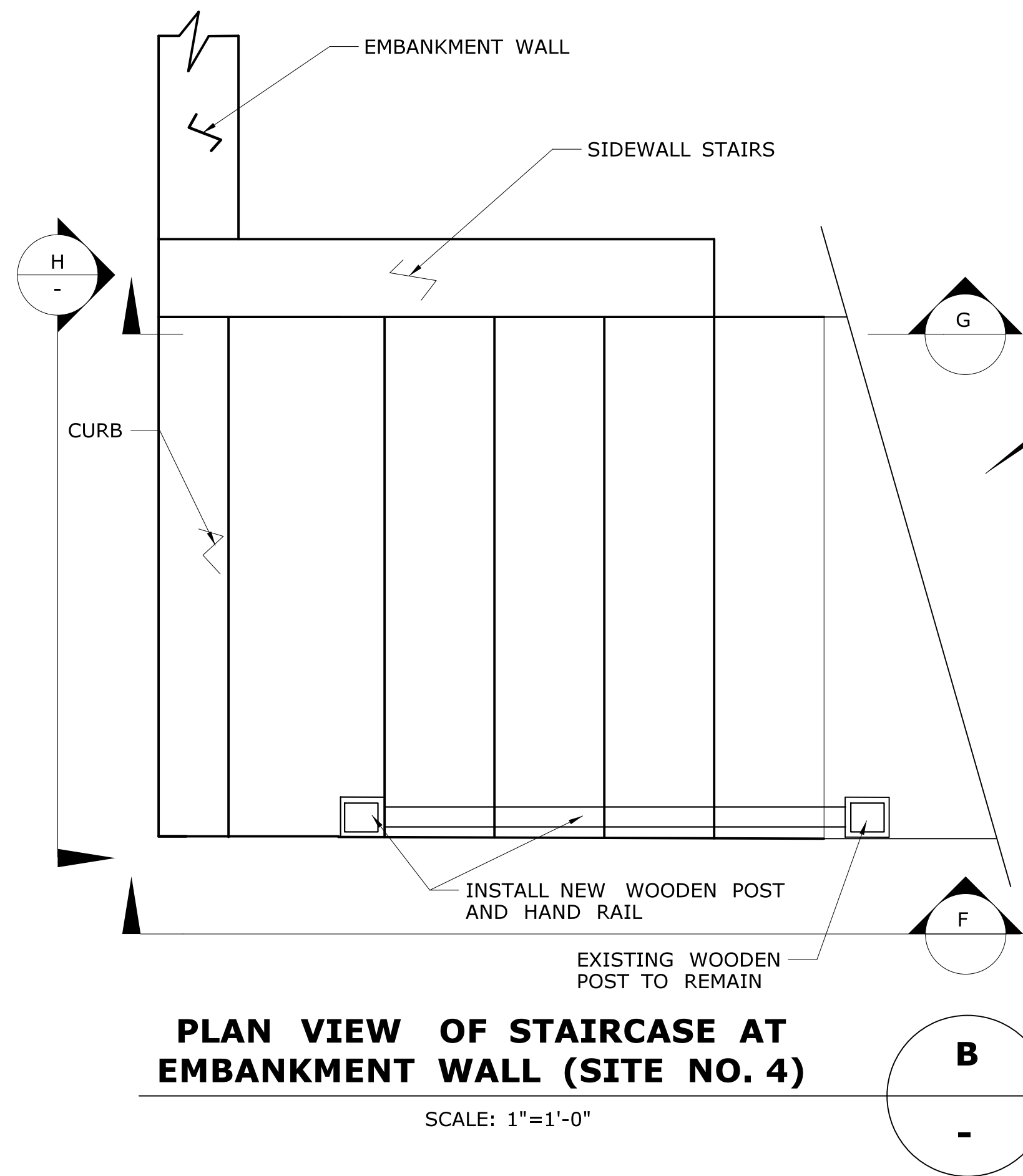
TOWN: **FARMINGTON**

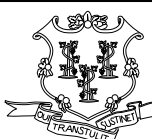
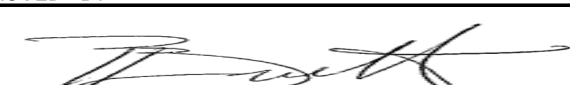
DRAWING TITLE: **EMBANKMENT WALL
(SITE NO.4)**

PROJECT NO.	51-260
DRAWING NO.	S-24
SHEET NO.	06.24



				DESIGNER/DRAFTER: BU		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	DRAWING TITLE: EMBANKMENT WALL (SITE NO.4)-DETAILS	PROJECT NO. 51-260 DRAWING NO. S-25 SHEET NO. 06.25
				CHECKED BY: RDD							
				SCALE AS NOTED							
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015		Filename: ...\\SB-Embankment Wall (Site No. 4) Layout.dgn					



				DESIGNER/DRAFTER: BU		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON DRAWING TITLE: EMBANKMENT WALL (SITE NO.4) STAIRS - REINFORCEMENT	PROJECT NO. 51-260 DRAWING NO. S-26 SHEET NO. 06.26					
				CHECKED BY: RDD											
				SCALE AS NOTED											
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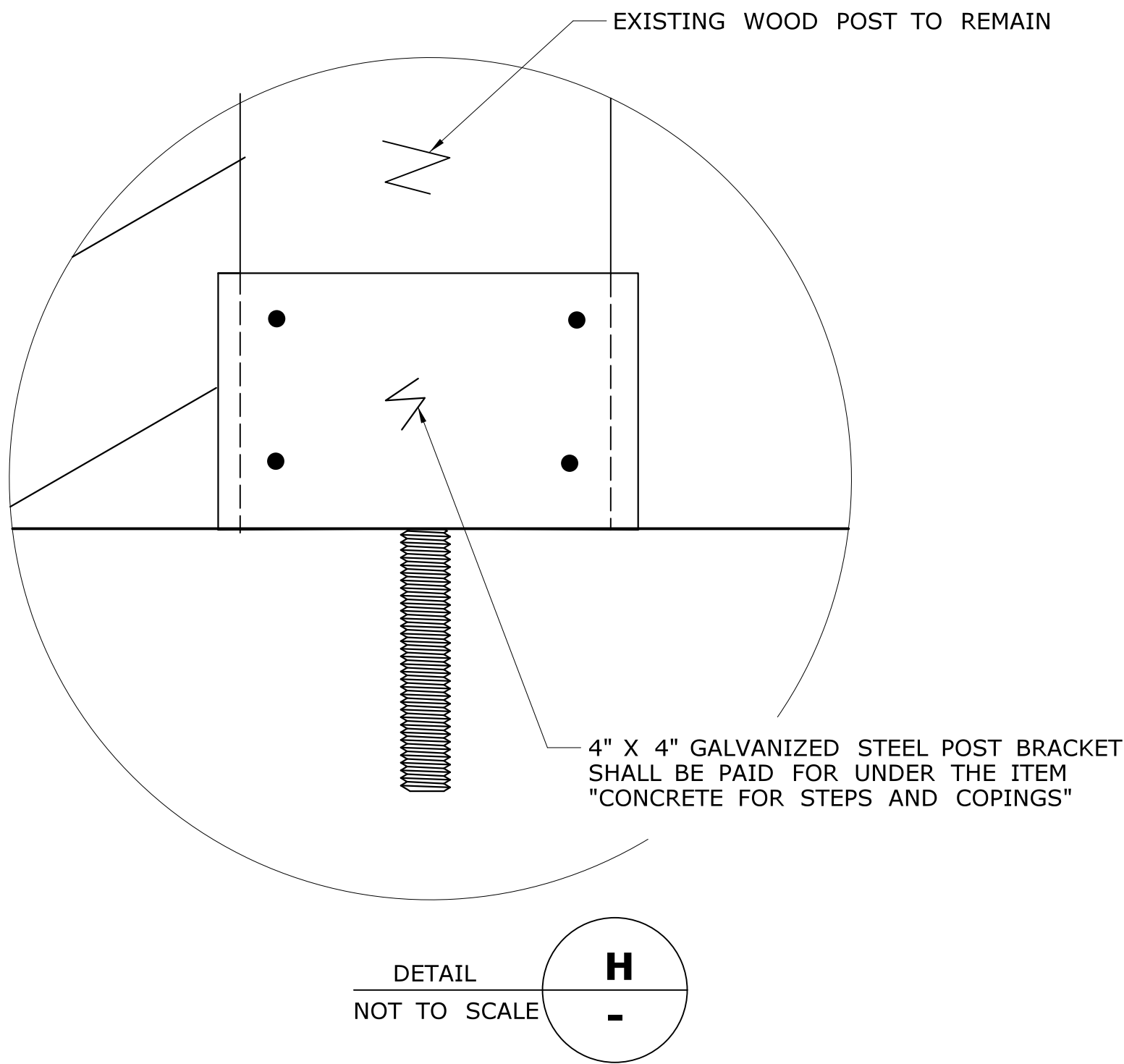
VIEW- WOOD HANDRAILS

NOT TO SCALE





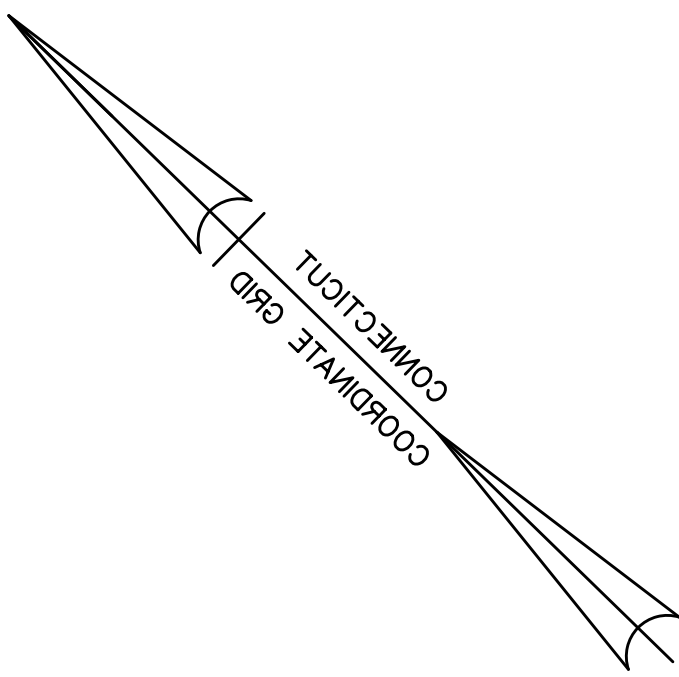
VIEW- WOOD HANDRAILS



NOT TO SCALE

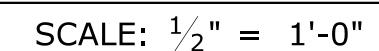


NOTE:
MATCH EXISTING WOOD POST AND HANDRAILS AND SPINDLES.
THIS WORK SHALL BE PAID FOR UNDER THE ITEM
"CONCRETE FOR STEPS AND COPINGS"

				DESIGNER/DRAFTER: BU		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	PROJECT NO. 51-260			
				CHECKED BY: RDD							APPROVED BY: 	DRAWING TITLE: WOOD HANDRAILS DETAIL	DRAWING NO. S-27
				SCALE AS NOTED									
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015		Filename: ...\\Wood Hand Rails.dgn							



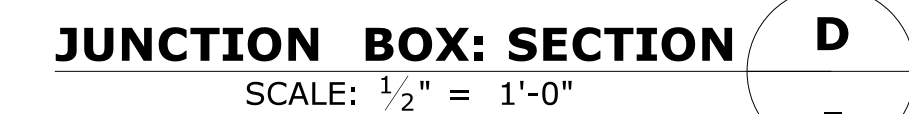
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THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.					SCALE AS NOTED		Filename: ...\\General_Plan_Junction_Box_1.dgn									
REV.	DATE	REVISION	DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015											





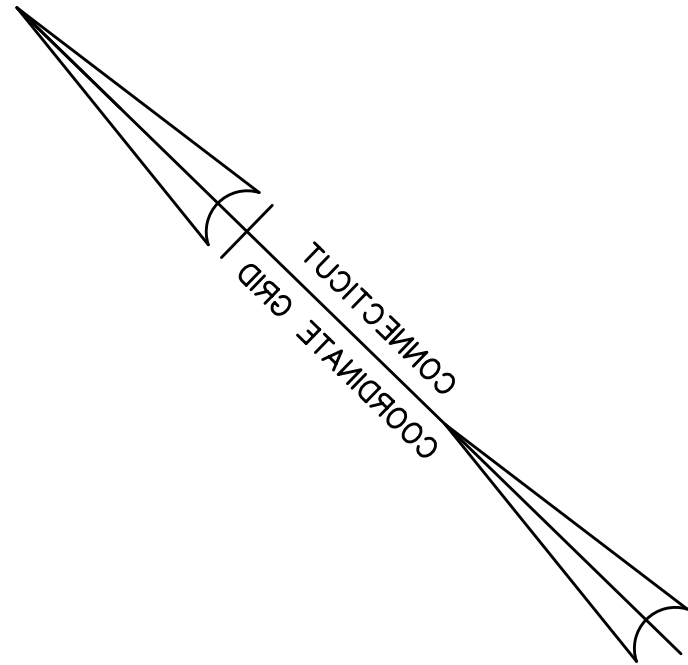
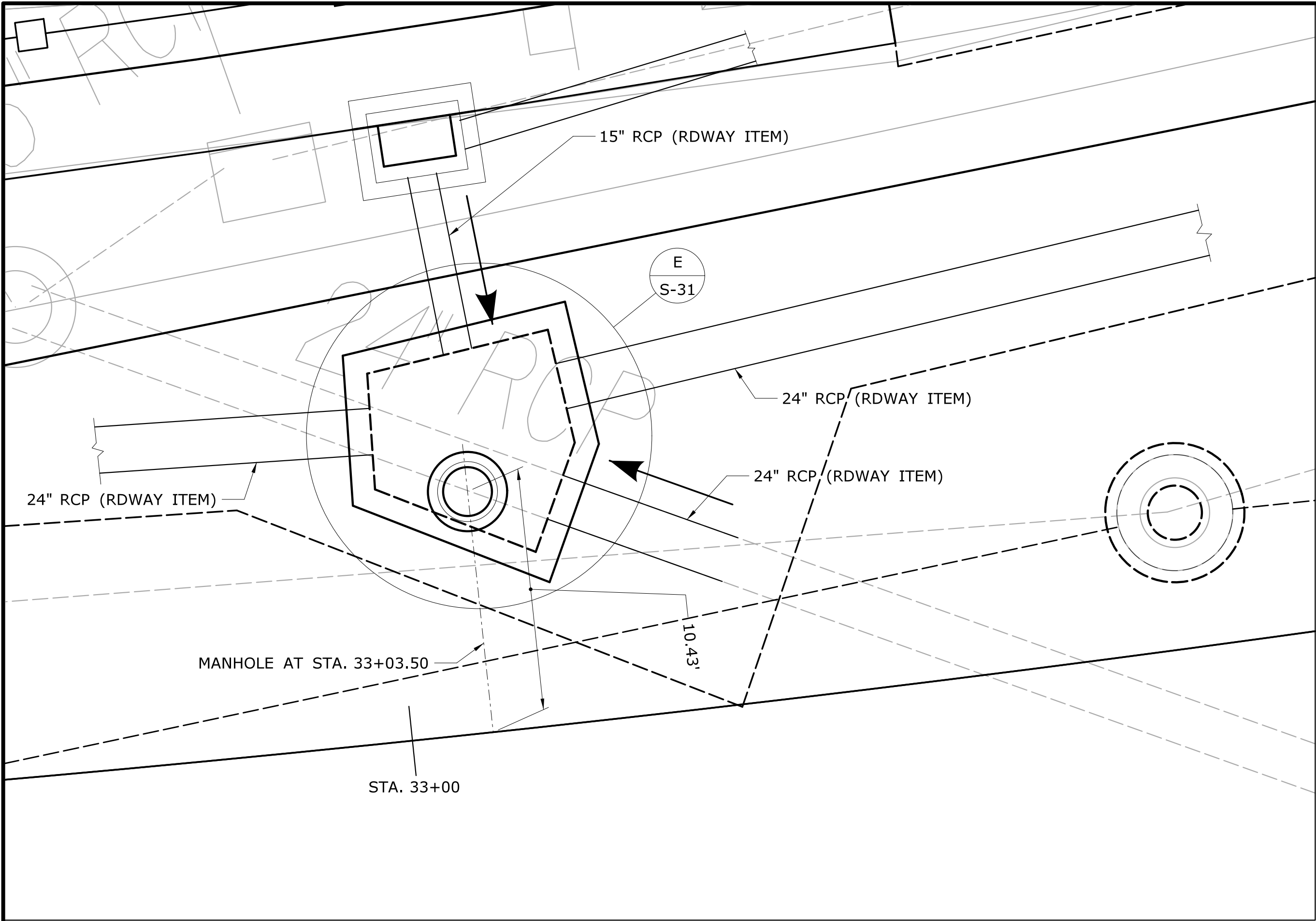
NOTE: THE INDICATED DIMENSIONS FOR THE TOP SLAB ARE BASED ON 12" THICK WALLS. IF THICKER WALLS ARE USED THE INDICATED DIMENSIONS MUST BE REVISED BY THE CONTRACTOR.

[illegible]

CLSM: CONTROLLED LOW
STRENGTH MATERIAL



				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: RDH CHECKED BY: RDD SCALE AS NOTED		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION Filename: ...\\General_Plan_Junction_Box_1\\Details.dgn		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY: 		PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.		TOWN: FARMINGTON DRAWING TITLE: DETAILS JUNCTION BOX NO. 1		PROJECT NO. 51-260 DRAWING NO. S-29 SHEET NO. 06.29	
REV.	DATE	REVISION	DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015												




GENERAL PLAN
JUNCTION BOX NO. 2 AT STA. 33+03.50
SCALE: 1/4" = 1'-0"


REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.


Plotted Date: 7/9/2015

DESIGNER/DRAFTER:
RDH
CHECKED BY:
RDD
SCALE AS NOTED

**STATE OF CONNECTICUT**
DEPARTMENT OF TRANSPORTATION



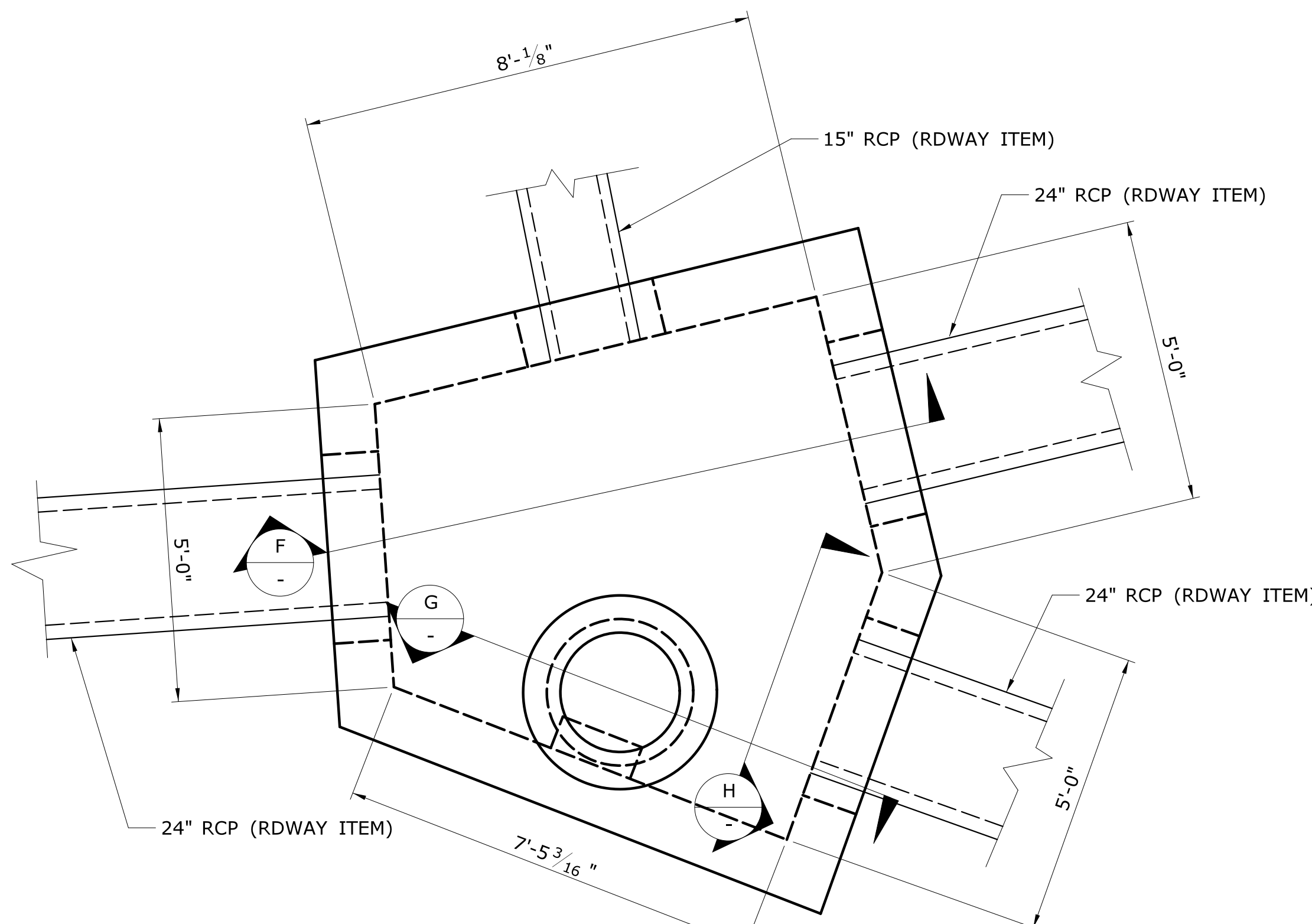
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SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:


PROJECT TITLE:
SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS
ON ROUTE 4 (FARMINGTON AVE) FROM
GARDEN ST. TO MOUNTAIN SPRING RD.

TOWN:
FARMINGTON
DRAWING TITLE:
GENERAL PLAN
JUNCTION BOX NO. 2

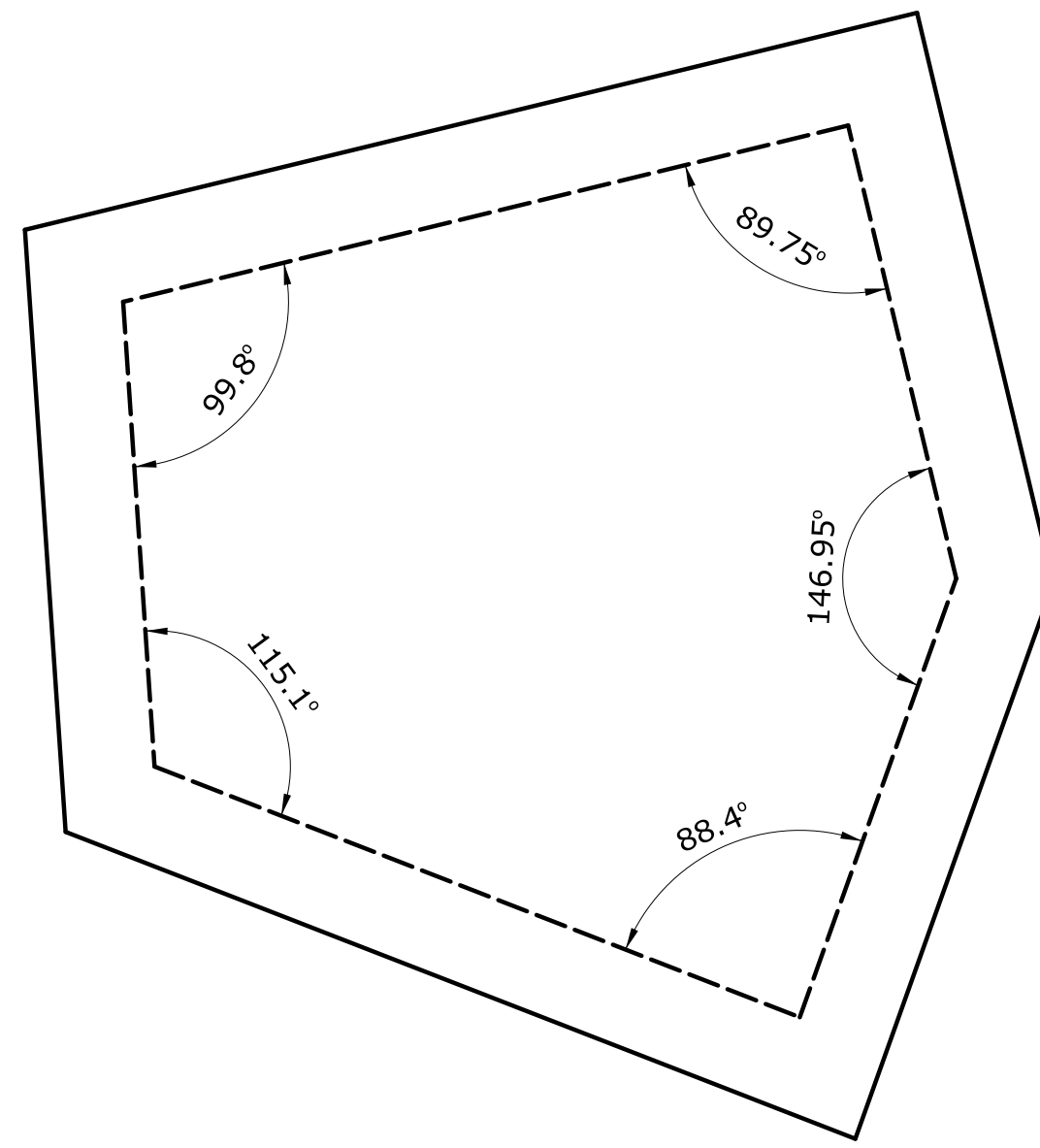
PROJECT NO.
51-260
DRAWING NO.
S-30
SHEET NO.
06.30



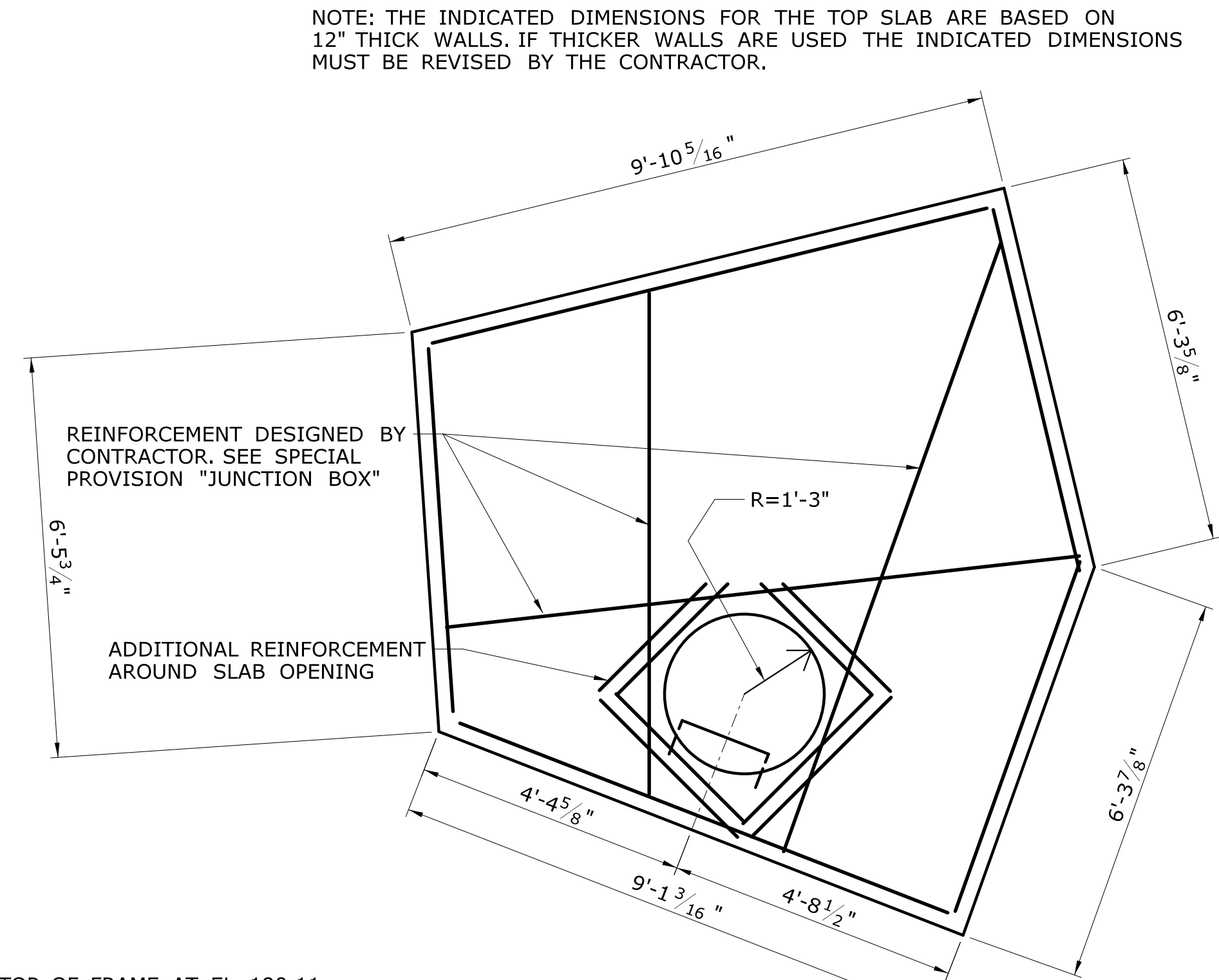
NOTE: THE INDICATED DIMENSIONS IN DETAIL "E" ARE TAKEN AT THE INSIDE WALLS

DETAIL E

SCALE: 1/2" = 1'-0"

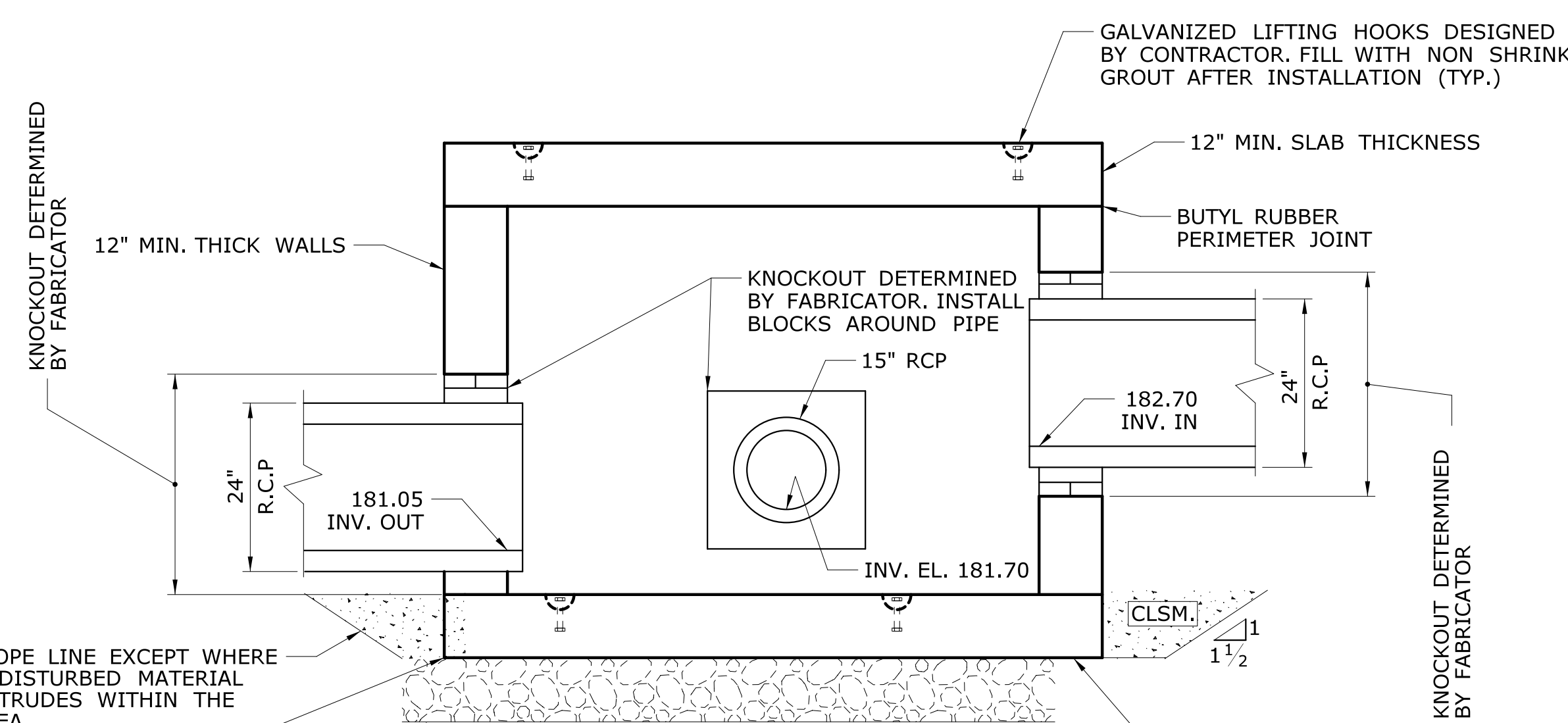


WALL ANGLES



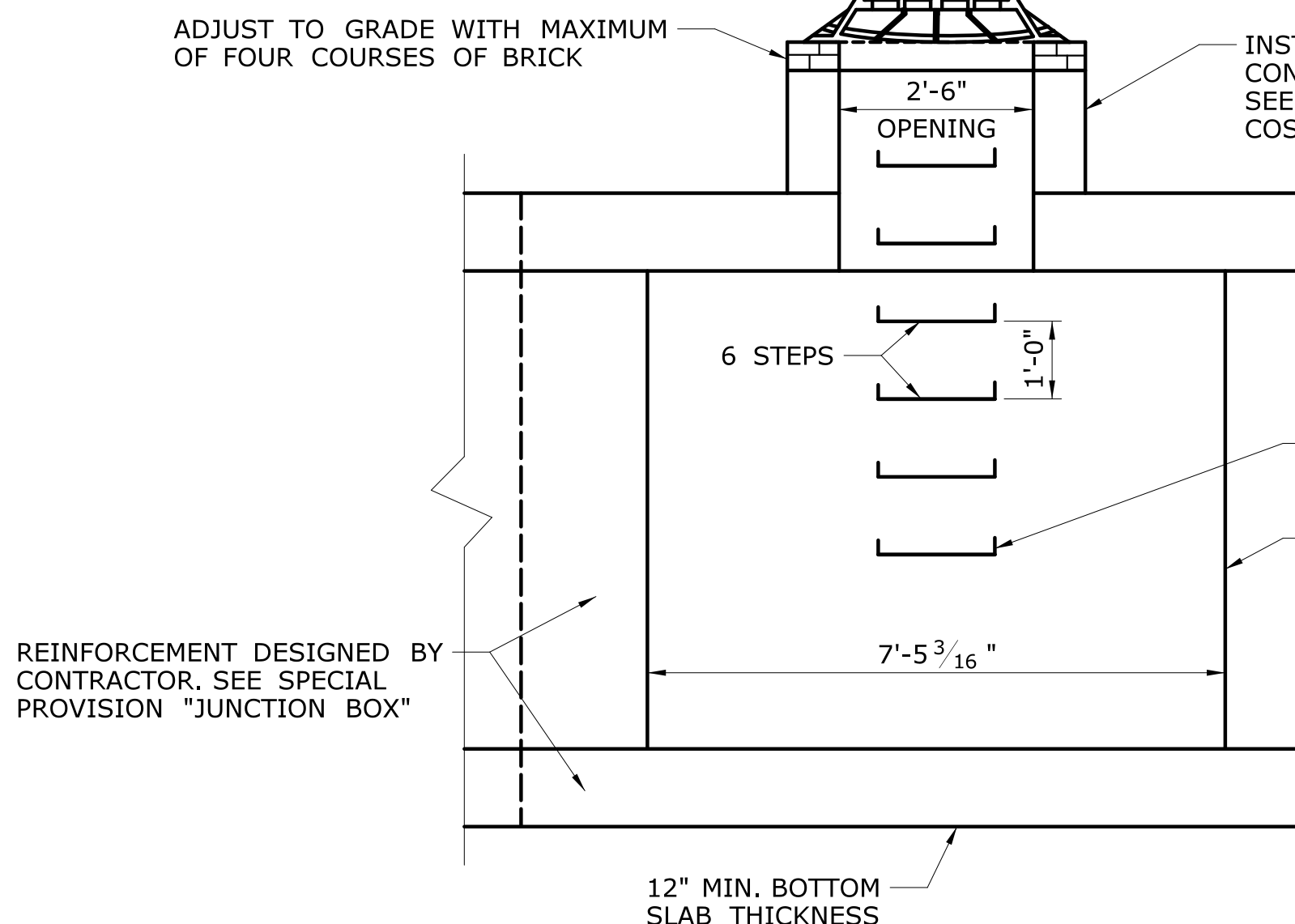
PLAN VIEW: TOP SLAB

SCALE: 1/2" = 1'-0"



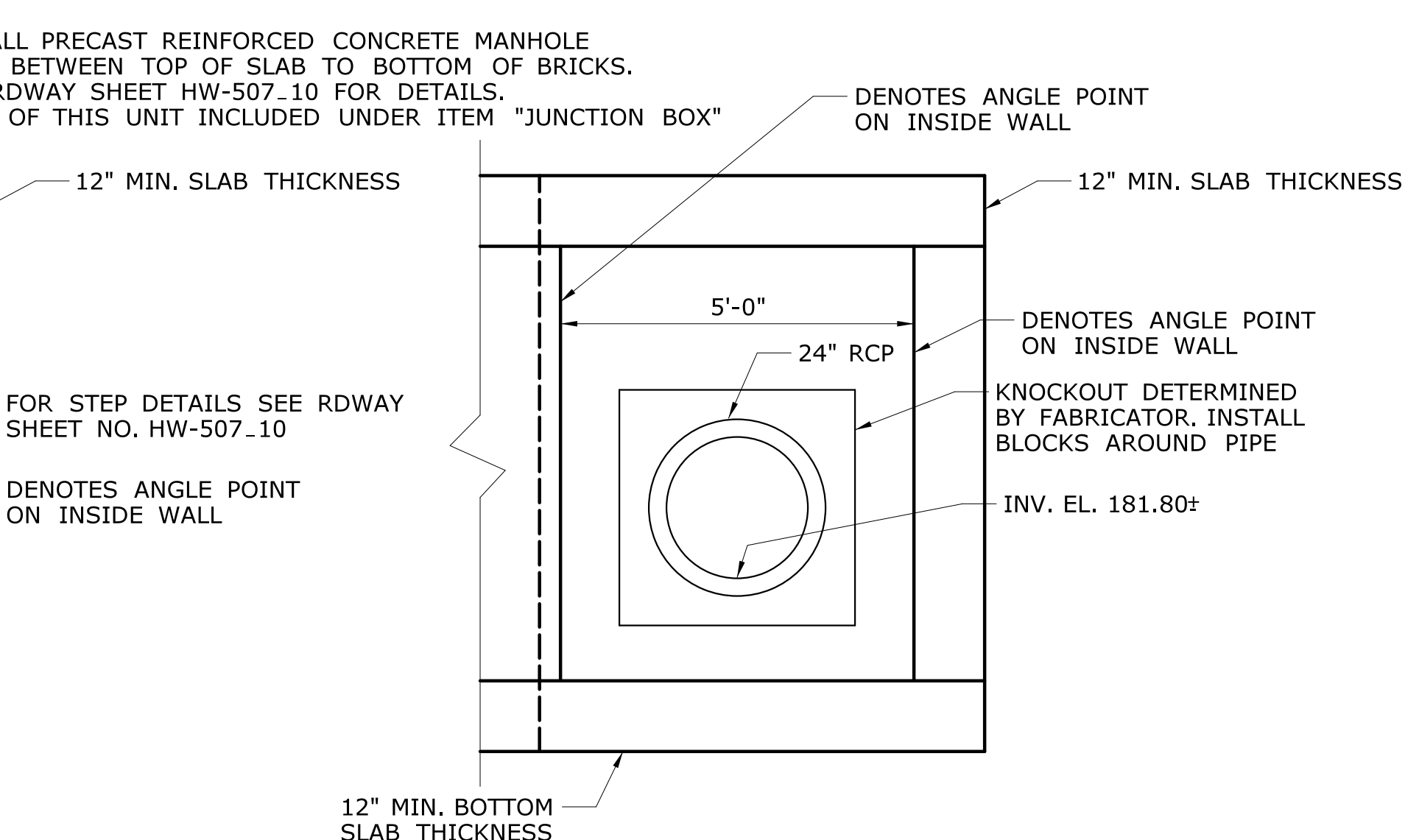
JUNCTION BOX: SECTION F

SCALE: 1/2" = 1'-0"



JUNCTION BOX: SECTION G



SCALE: 1/2" = 1'-0"

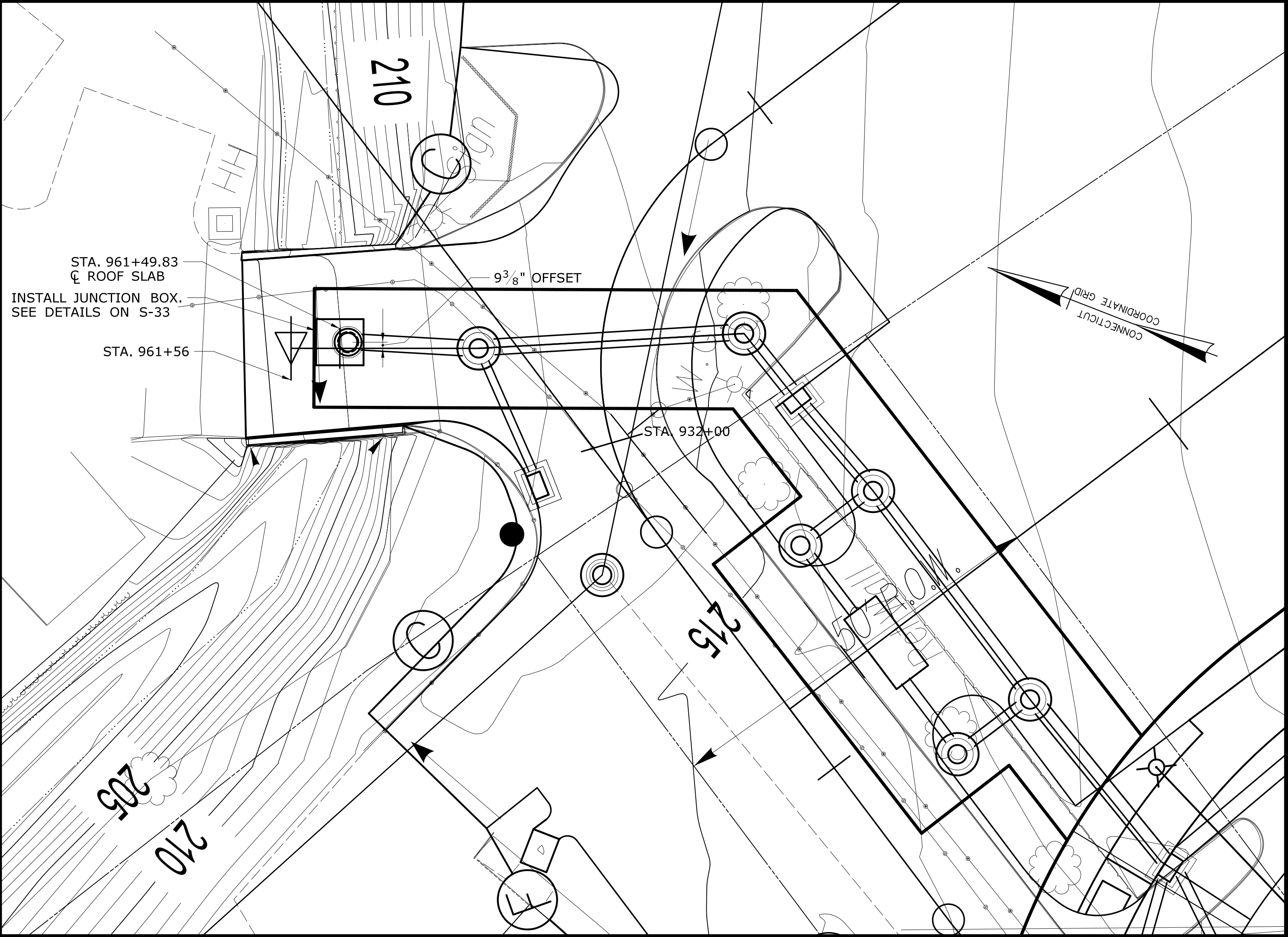


JUNCTION BOX: SECTION H

SCALE: 1/2" = 1'-0"

NOTE: THE BOTTOM AND TOP SLABS SHALL INCLUDE A CONCRETE SHIP LAP OR LIP AS REQUIRED TO PREVENT LATERAL DISPLACEMENTS OF THE TOP AND BOTTOM SLABS. (NOT SHOWN)


THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.				DESIGNER/DRAFTER:	 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	SIGNATURE/ BLOCK:	PROJECT TITLE:	TOWN:	PROJECT NO.		
				RDH						51-260	
				CHECKED BY:							DRAWING NO.
				RDD							
				SCALE AS NOTED	Filename: ...\\General_Plan_Junction_Box_2Details.dgn	APPROVED BY:	SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	DRAWING TITLE:	SHEET NO.		
								DETAILS JUNCTION BOX NO. 2	06.31		
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015							



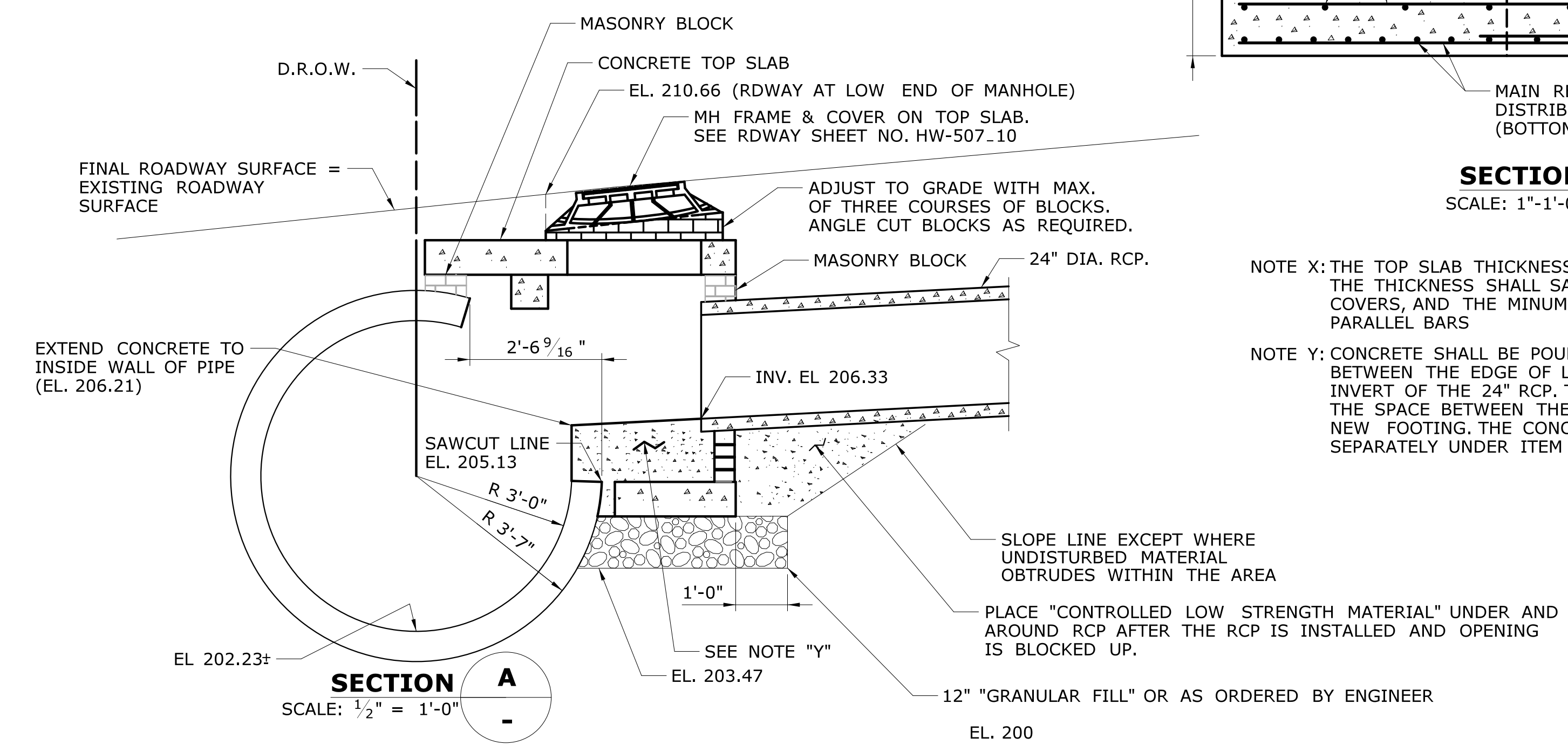
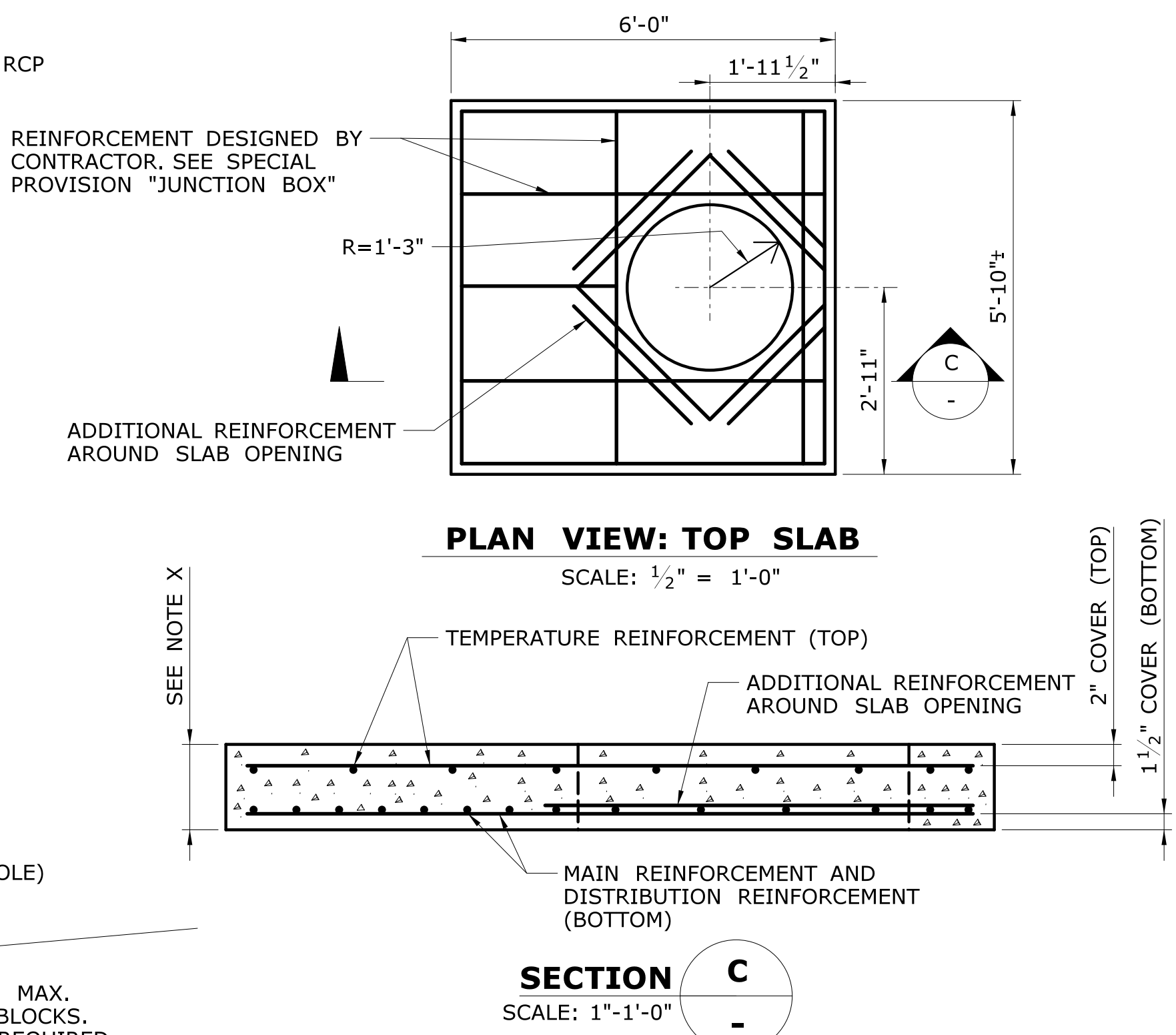
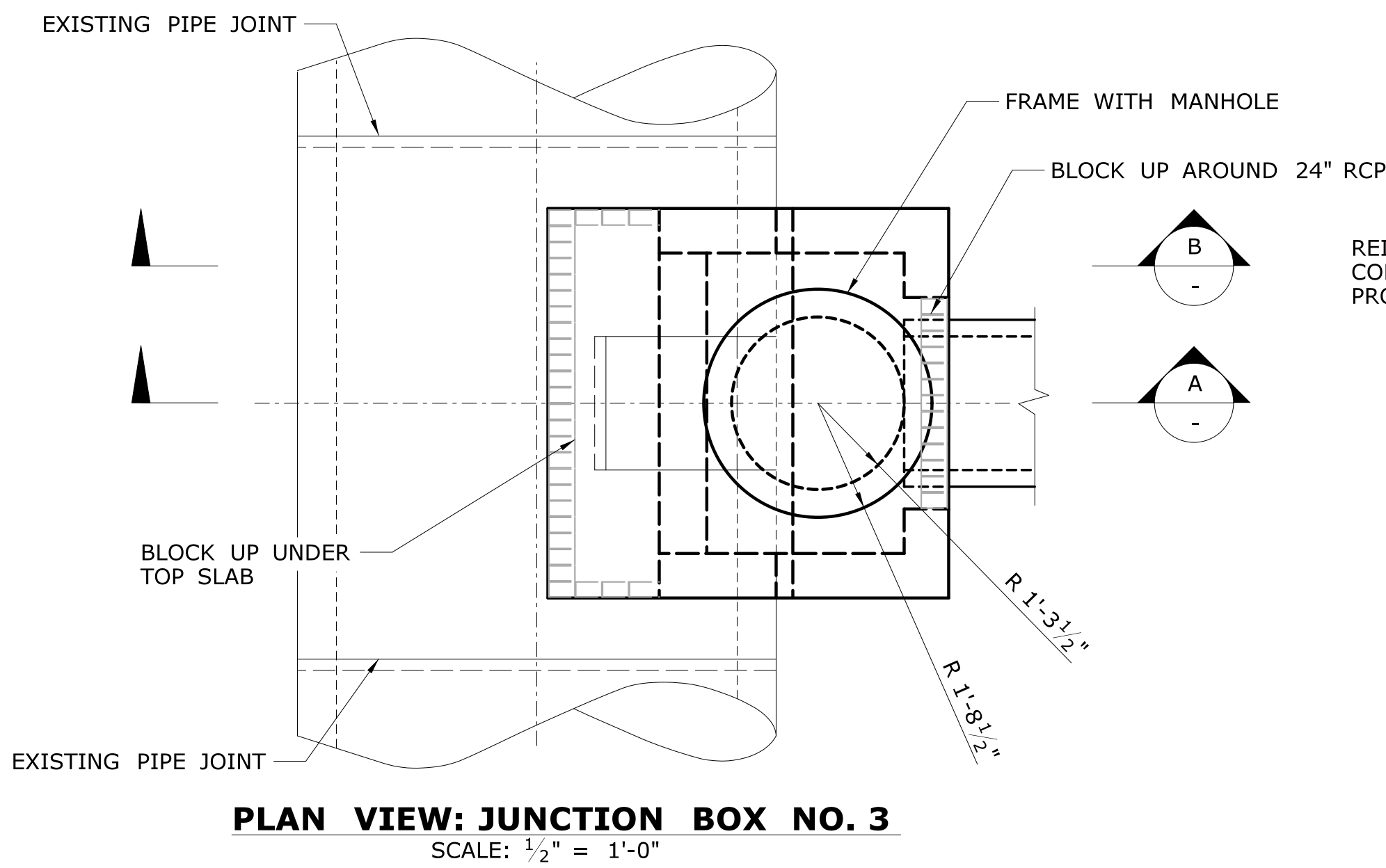
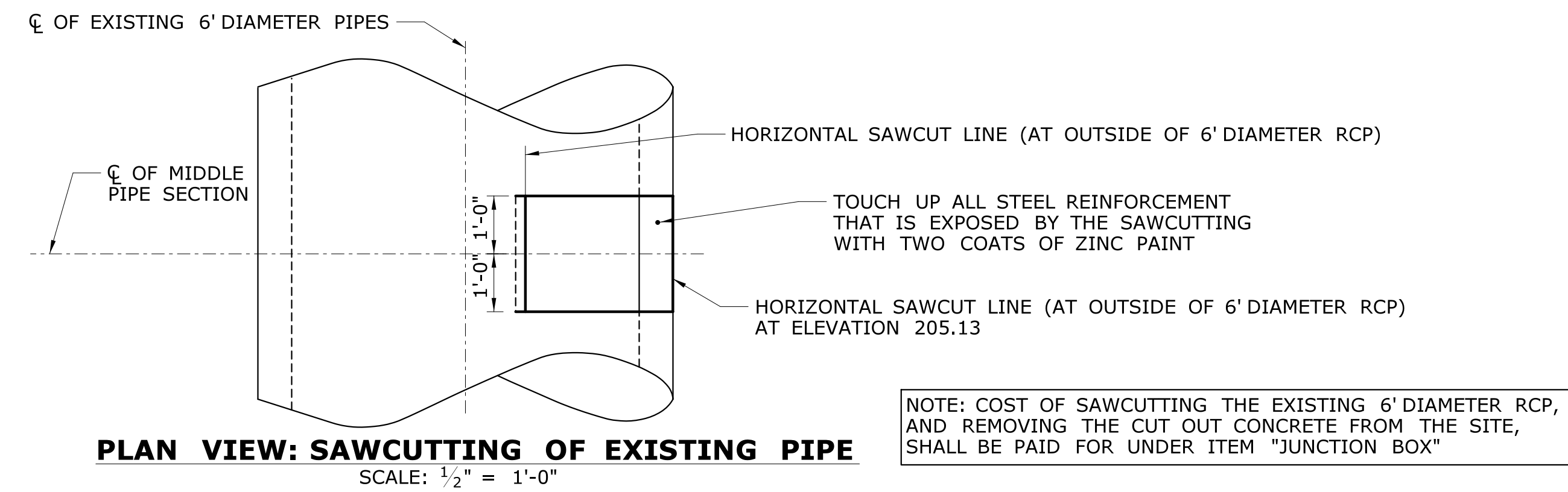
GENERAL PLAN-JUNCTION BOX NO. 3
SCALE 1"=10'

SUGGESTED CONSTRUCTION SEQUENCE

- 1) EXCAVATE TO EL. 203.47, PLACE GRANULAR FILL
- 2) SAWCUT EXISTING 6' DIAMETER RCP
- 3) CLEAN OUTSIDE OF PIPE OF DIRT AND DEBRIS
- 4) INSTALL JUNCTION BOX AND 24" RCP
- 5) INSTALL MASONRY BLOCK AROUND 24" RCP CLOSE TO BOTTOM OF TOP SLAB
- 6) PLACE CLASS "F" CONCRETE INSIDE JUNCTION BOX
- 7) PLACE SELF CONTROLLED LOW STRENGTH MATERIAL UNDER AND AROUND 24" PIPE
- 8) PLACE REMAINDER OF MASONRY BLOCKS ON 6' PIPE
- 9) LOWER TOP SLAB INTO POSITION. ALL GAPS SHALL BE FILLED WITH MORTAR
- 10) OUTSIDE OF STRUCTURE: PLACE MORTAR IN GAP BETWEEN JUNCTION BOX AND 6' DIAM. PIPE
- 11) INSTALL MANHOLE AND BACKFILL AROUND JUNCTION BOX AND 24" RCP
- 12) PAVE ROADWAY
- 13) ALLOW CONCRETE TO CURE, BLOCK OFF WATER COMING INTO 24" RCP DURING CURE PERIOD.
- 14) INSIDE OF STRUCTURE: INJECT POLYURETHANE MATERIAL INTO ALL GAPS BETWEEN THE SIDEWALLS AND 6' RCP.

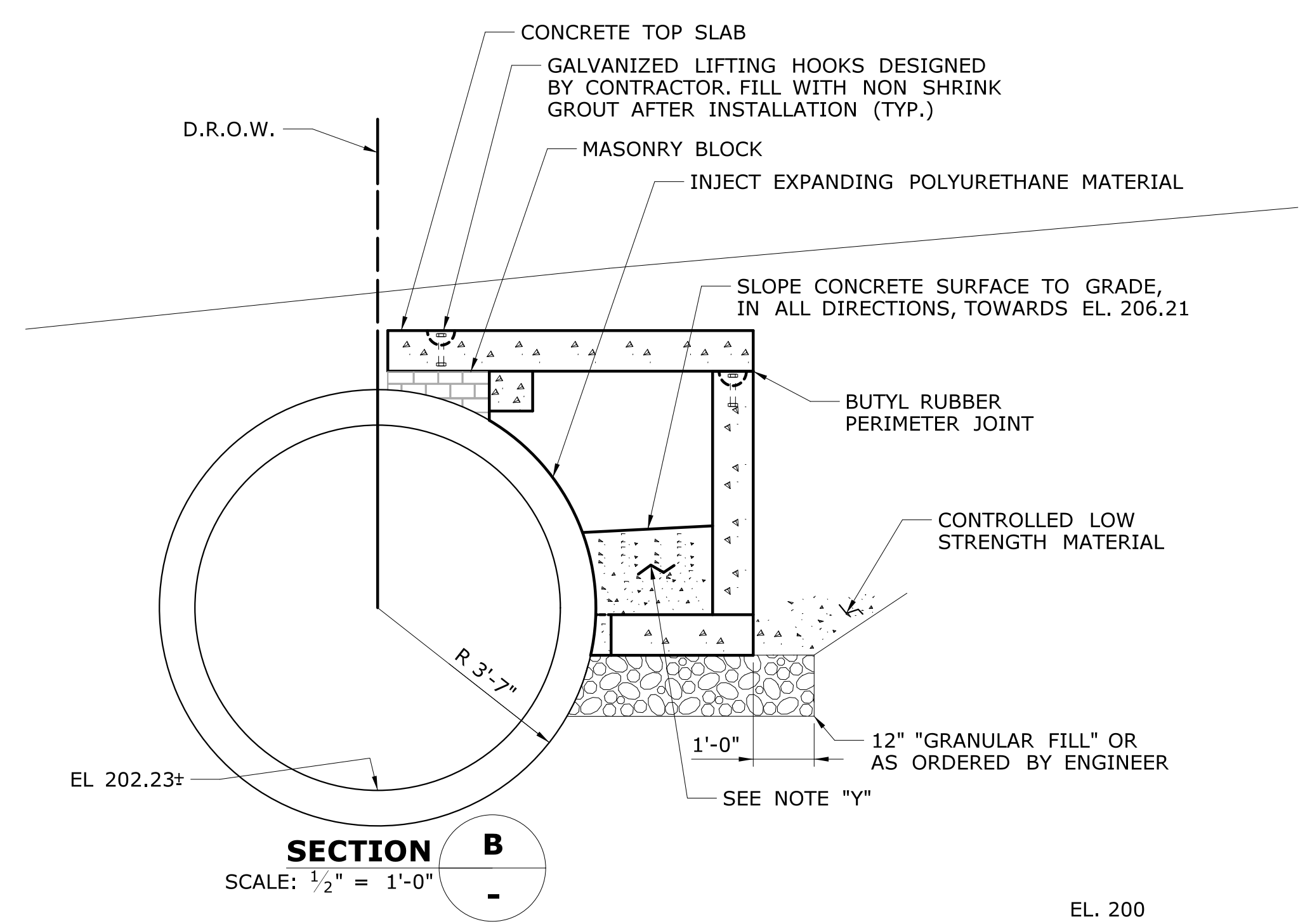
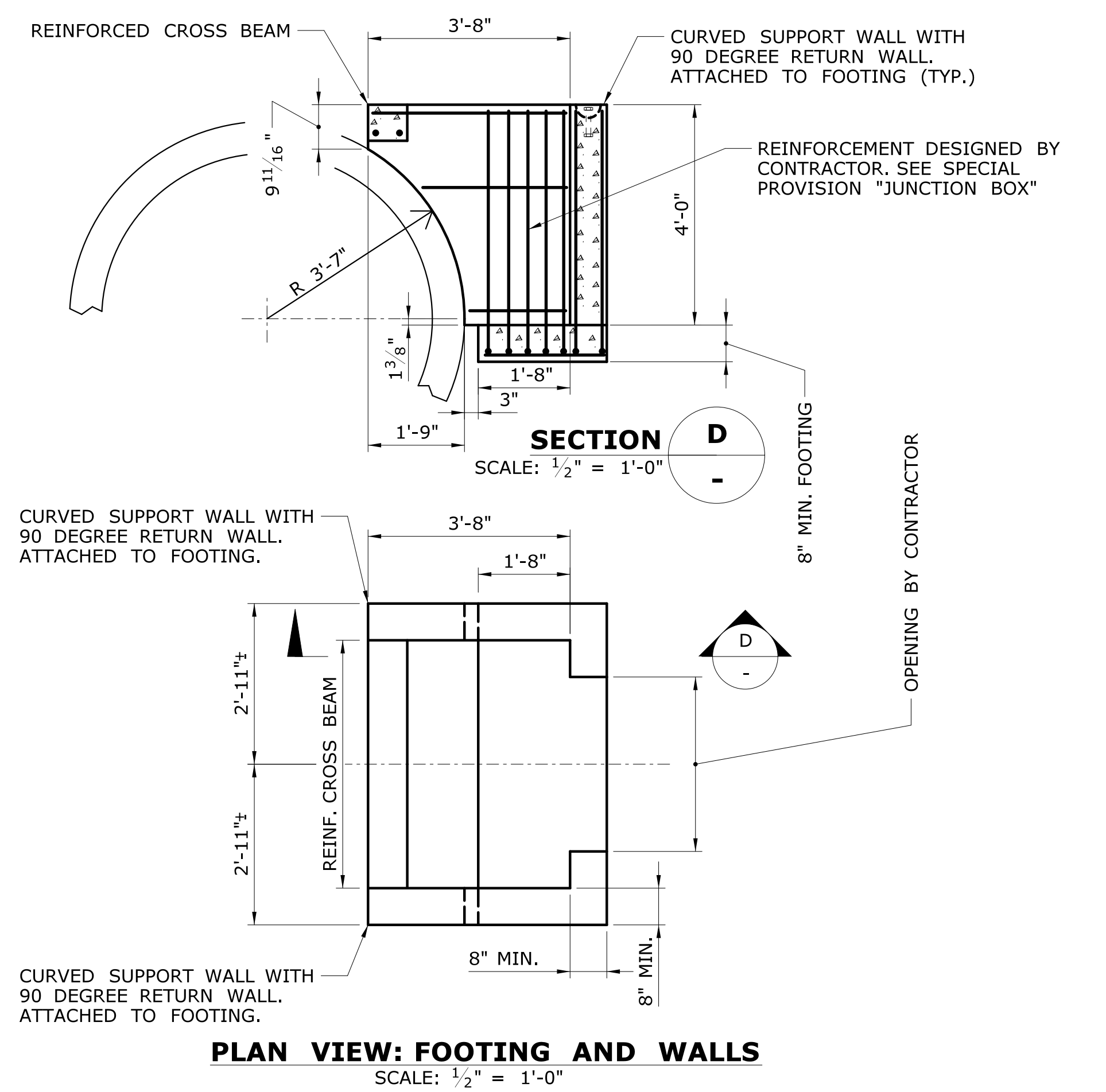
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				CHECKED BY: RDD						DRAWING NO. S-32	
				SCALE AS NOTED						SHEET NO. 06.32	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015		Filename: ...\\General_Plan_Manhole.1.dgn					



THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

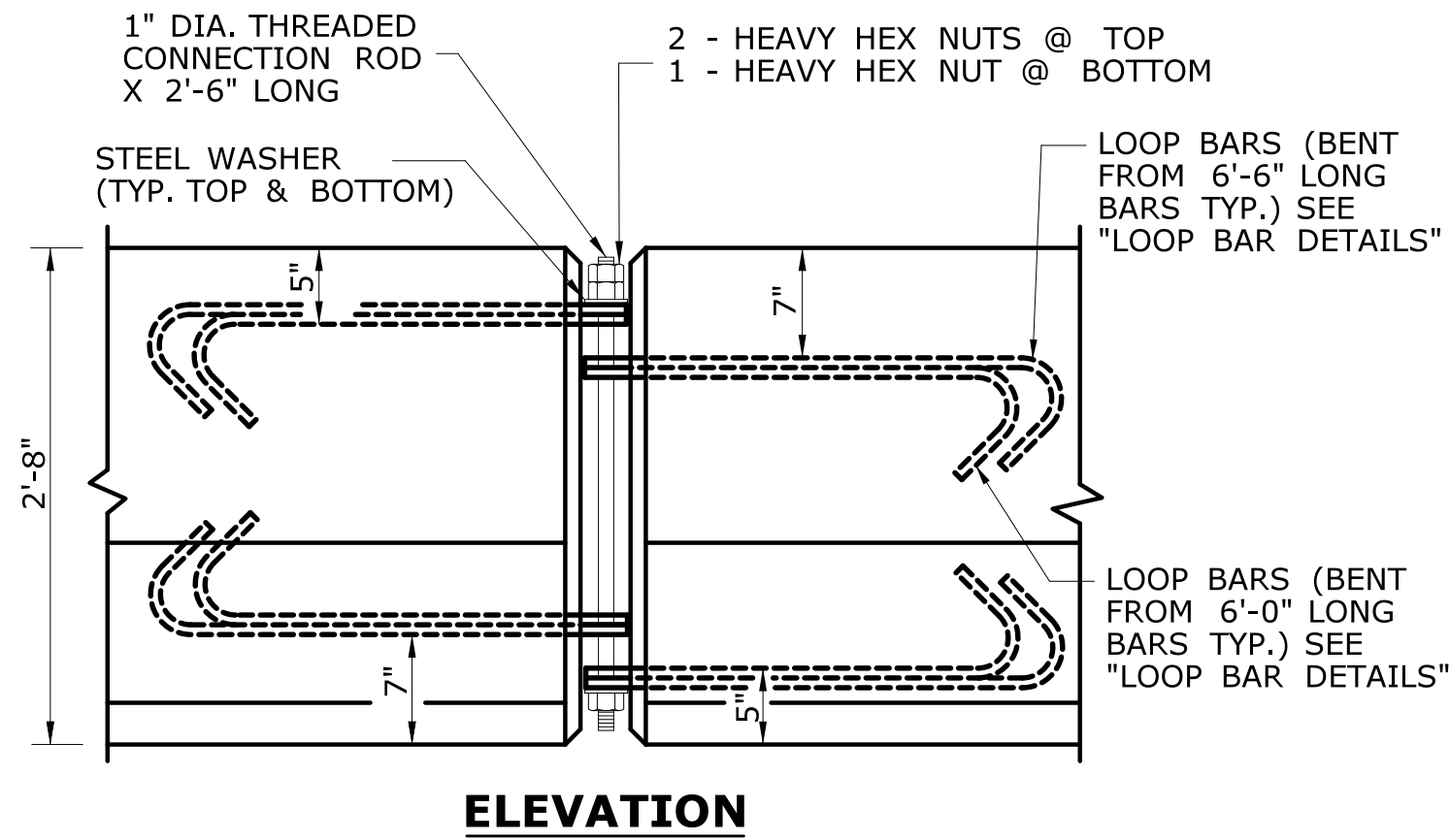
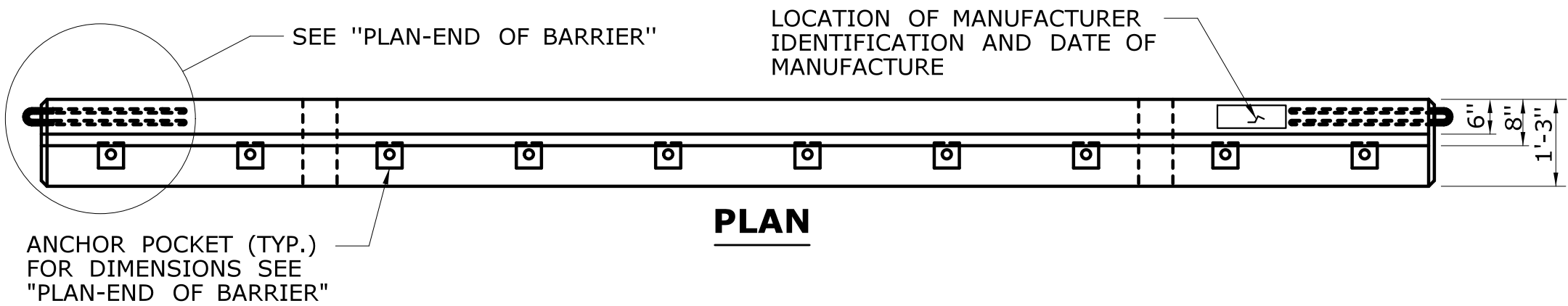


NOTE X: THE TOP SLAB THICKNESS SHALL BE DETERMINED BY THE CONTRACTOR. THE THICKNESS SHALL SATISFY ALL DESIGN LOADS, THE INDICATED COVERS, AND THE MINIMUM CLEARANCE REQUIREMENTS BETWEEN PARALLEL BARS

NOTE Y: CONCRETE SHALL BE POURED INSIDE THE JUNCTION BOX BETWEEN THE EDGE OF LOWER SAWCUT LINE AND THE INVERT OF THE 24" RCP. THE CONCRETE SHALL ALSO FILL THE SPACE BETWEEN THE 6' DIAMETER PIPE AND THE NEW FOOTING. THE CONCRETE SHALL BE PAID FOR SEPARATELY UNDER ITEM "CLASS "F" CONCRETE"



				DESIGNER/DRAFTER: RDD		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	PROJECT NO. 51-260	
				CHECKED BY: RDD								DRAWING NO. S-33
				SCALE AS NOTED								
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015		Filename: ...\\General_Plan_Manhole_18.dgn						



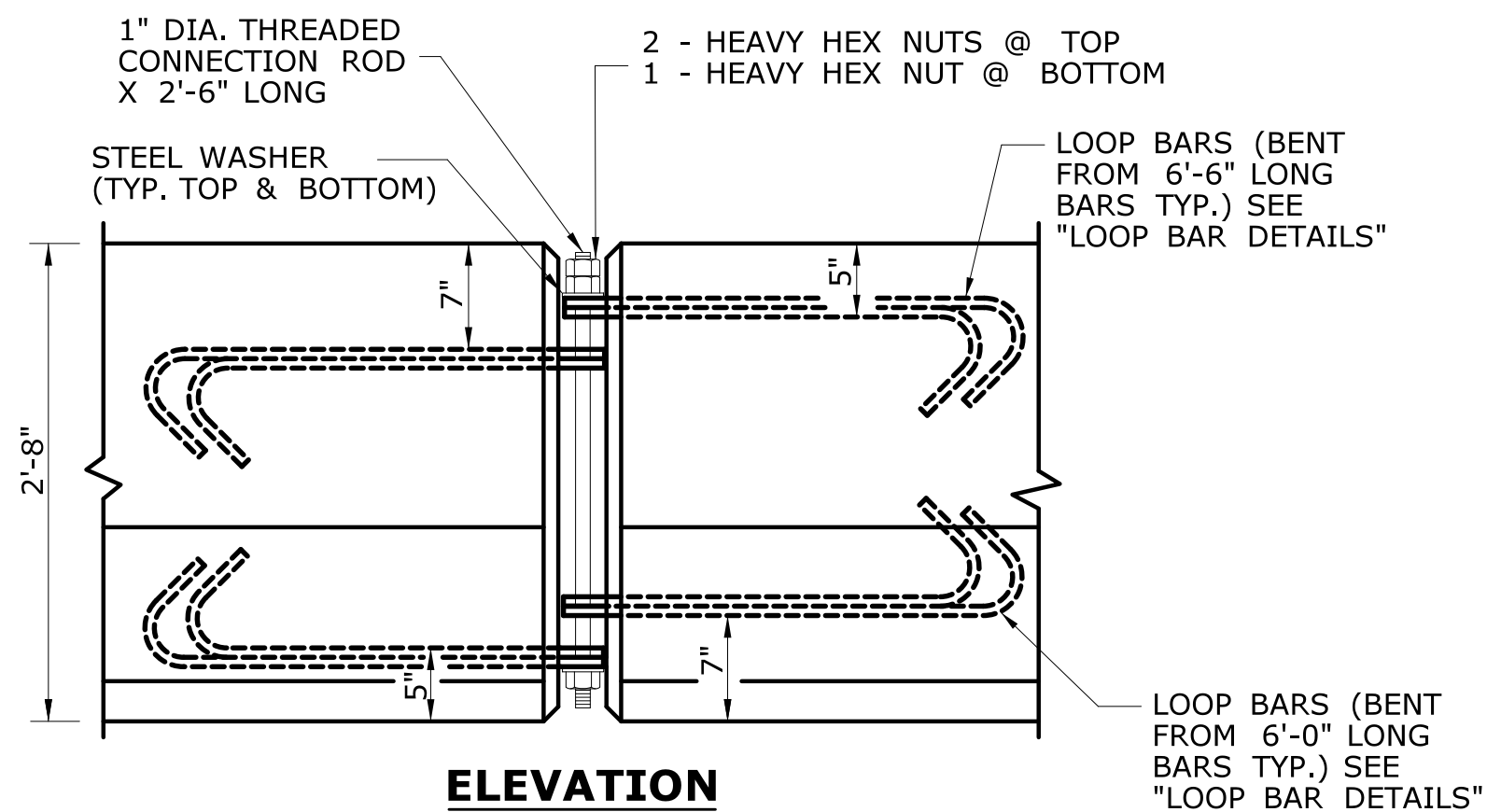
- NOTES FOR CONNECTION ROD DETAILS
(SEE "ELEVATION-BARRIER CONNECTION DETAILS")**
- 1.) PLAIN CIRCULAR STEEL WASHERS SHALL BE MANUFACTURED WITH THE FOLLOWING DIMENSIONS:

OUTSIDE DIAMETER = $2\frac{3}{4}" (+\frac{1}{4}", -0")$
INSIDE DIAMETER = $1\frac{1}{4}" (\pm\frac{1}{16}")$
THICKNESS = $\frac{3}{16}"$
 - 2.) THE NUTS ON THE CONNECTION ROD SHALL BE TURNED UNTIL THE BOTTOM WASHER IS DRAWN UP AGAINST THE LOOP BAR. THE LOOP BARS SHALL NOT BE BENT DUE TO THE TIGHTENING PROCESS.
 - 3.) FOR EASE OF REMOVAL, THE THREADS ON THE CONNECTION RODS AND NUTS SHALL BE WAXED.

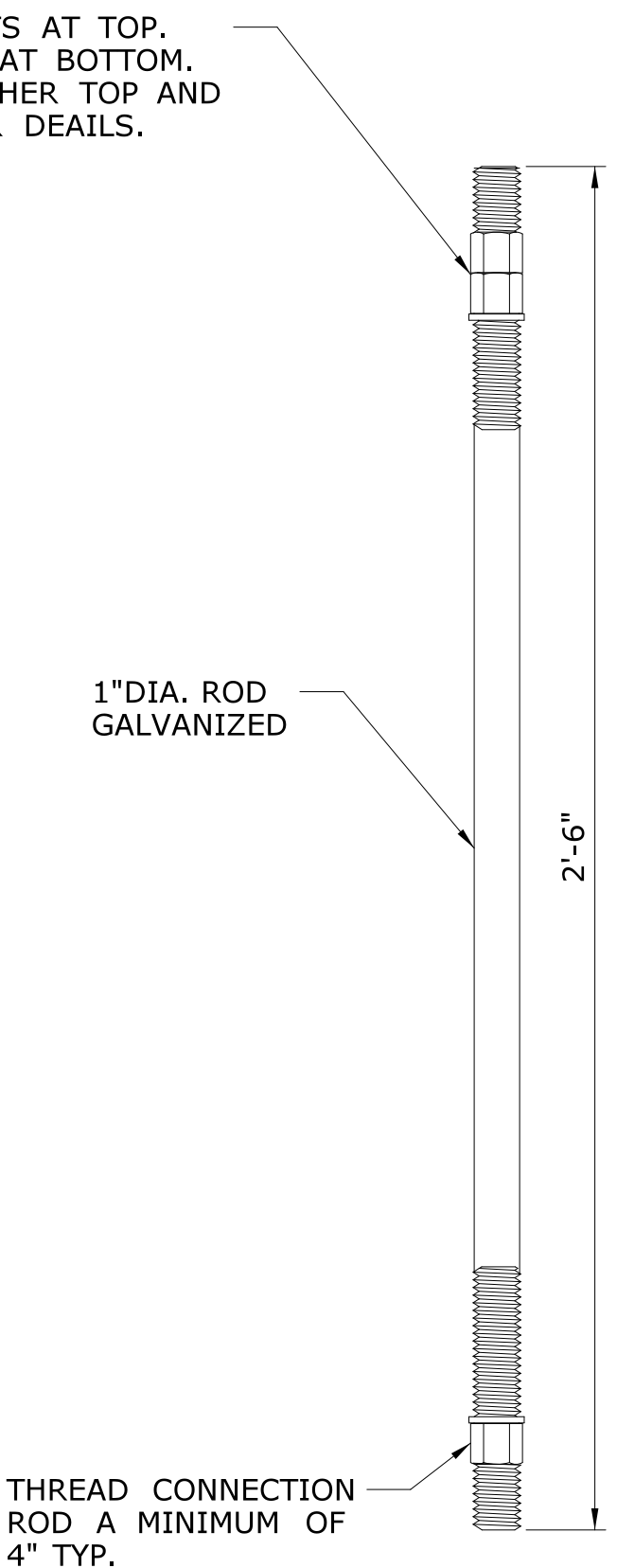
BARRIER CONNECTION DETAILS-I
SCALE: 1" = 1'-0"

TWO HEAVY HEX NUTS AT TOP.
ONE HEAVY HEX NUT AT BOTTOM.
ONE STEEL FLAT WASHER TOP AND BOTTOM. SEE WASHER DETAILS.
ALL GALVANIZED

NOTE:
THERE ARE TWO ELEVATION VIEWS (I AND II) SHOWN FOR THE BARRIER CONNECTION DETAILS ON THIS SHEET. THE PURPOSE OF THESE TWO VIEWS IS TO CLARIFY THAT THE STRUCTURE HALF-BARRIERS MUST BE FABRICATED SUCH THAT THE LOOP BARS WILL NOT CONFLICT WITH THE OTHER LOOP BARS THAT PROJECT OUT FROM THE ADJACENT TEMPORARY CONCRETE ROADWAY BARRIER. THE CHOICE OF WHICH BARRIER CONNECTION DETAIL TO BE USED FOR THE FABRICATION OF THE STRUCTURE HALF-BARRIERS SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION DEPENDING ON THE HEIGHT OF THE LOOP BARS IN THE ADJACENT ROADWAY BARRIERS, FOR THE CONSTRUCTION STAGE UNDER CONSIDERATION.



BARRIER CONNECTION DETAILS-II
SCALE: 1" = 1'-0"



CONNECTION ROD
SCALE: 3" = 1'-0"

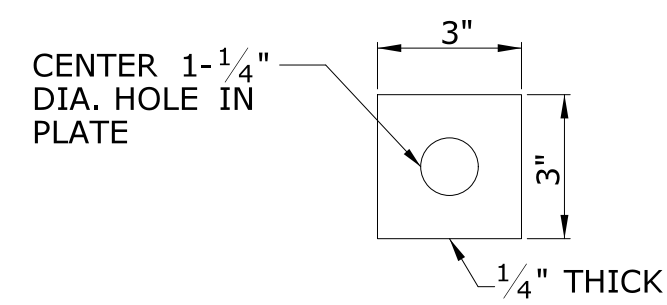
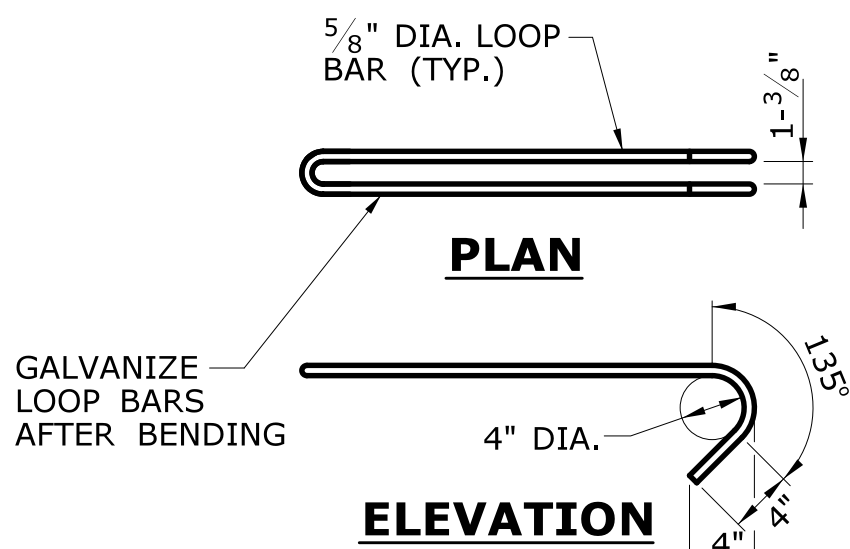
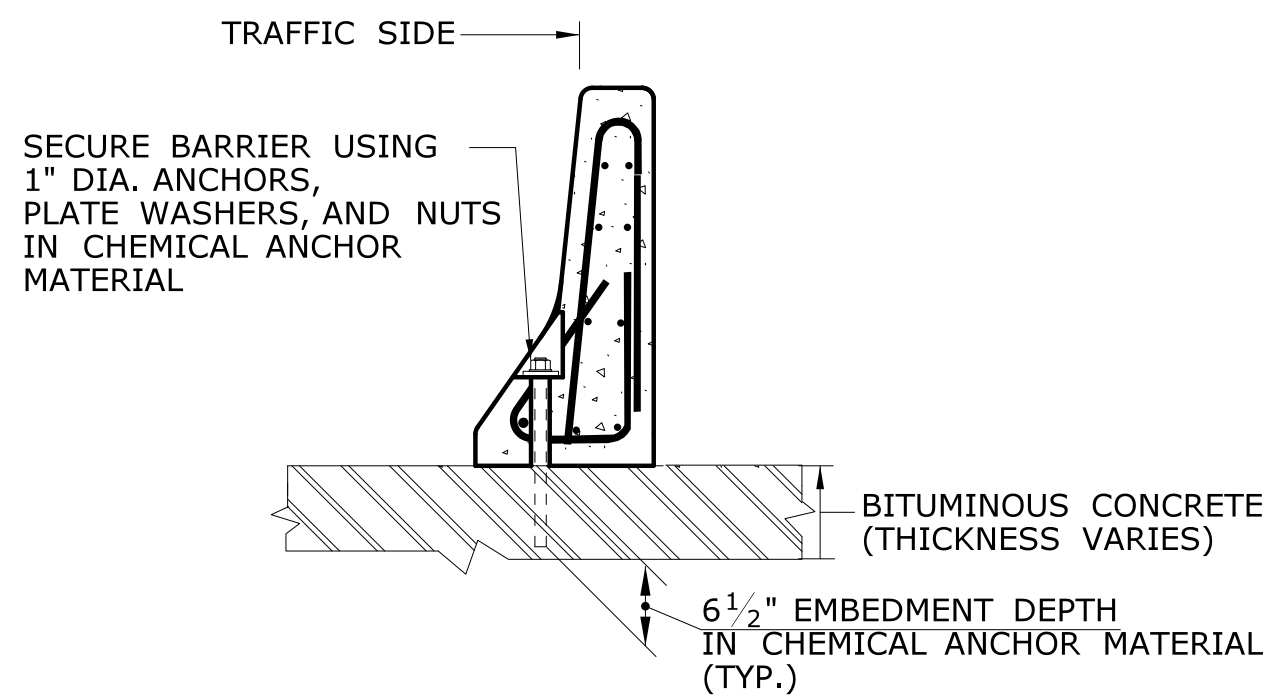


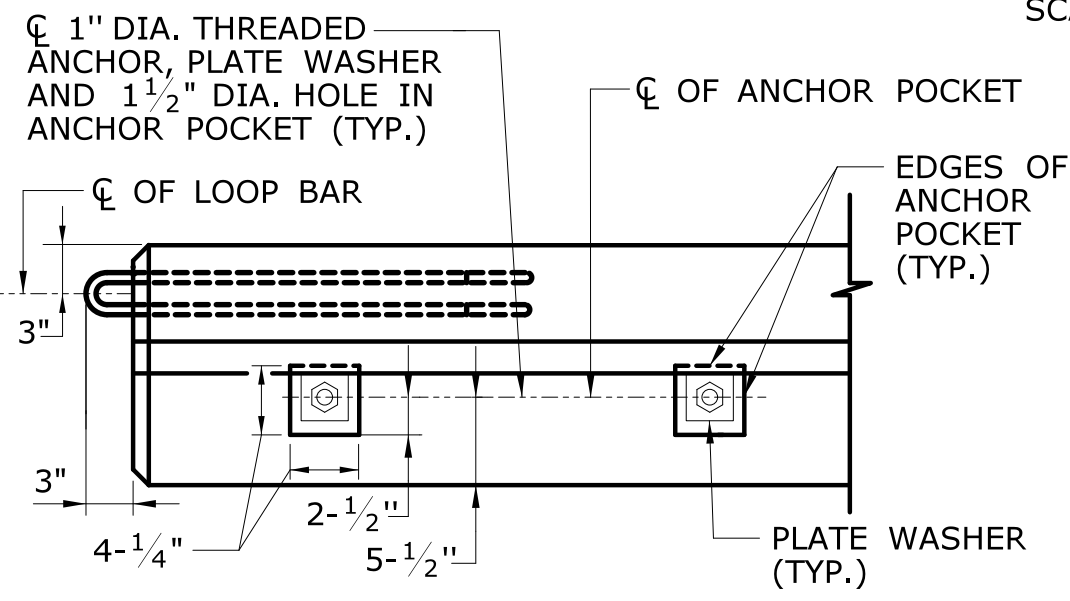
PLATE WASHER
SCALE: 3" = 1'-0"



LOOP BAR DETAILS
SCALE: 1" = 1'-0"

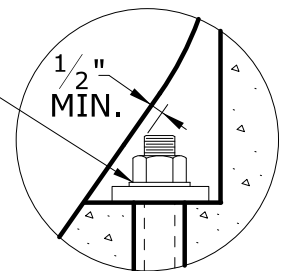


ATTACHMENT INTO BITUMINOUS CONCRETE

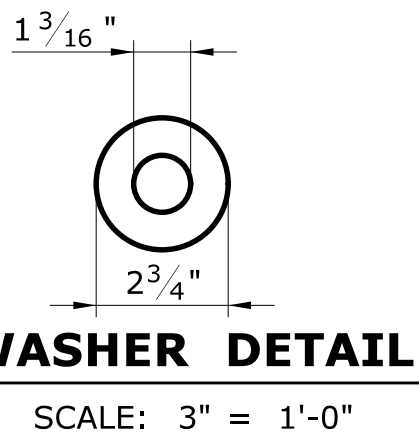


PLAN-END OF BARRIER
SCALE: 1" = 1'-0"

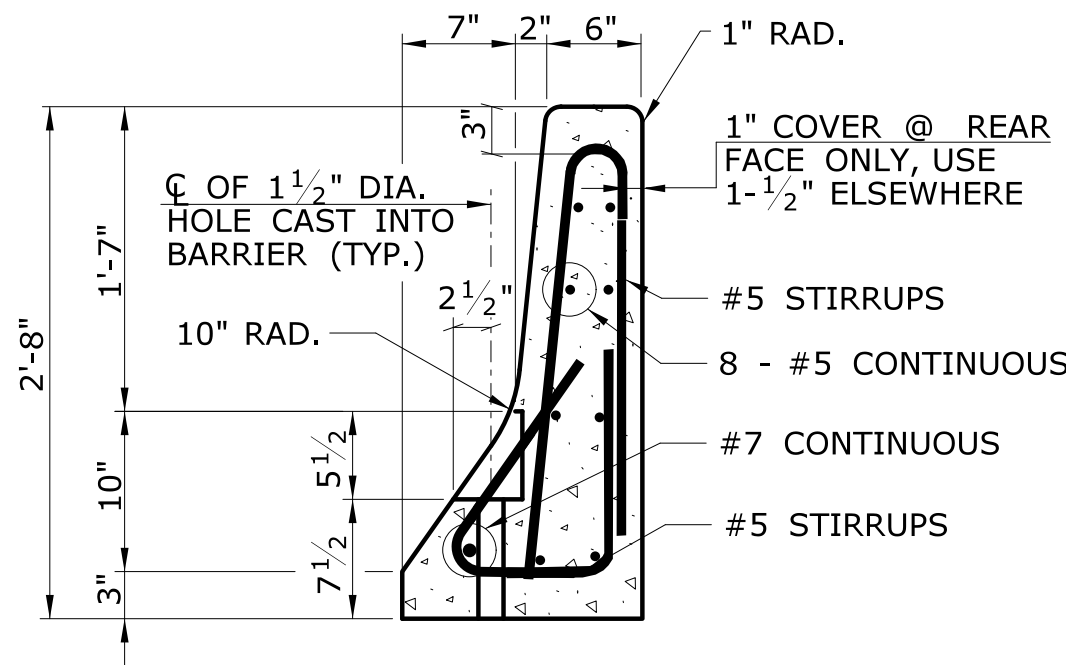
TACK WELD NUT TO THREADED ROD IF REQUIRED FOR INSTALLATION



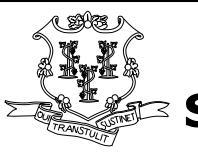


DETAIL B
SCALE: 1 1/2" = 1'-0"



WASHER DETAIL
SCALE: 3" = 1'-0"



SECTION A-A
SCALE: 1" = 1'-0"

				DESIGNER/DRAFTER: BU		 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	 OFFICE OF ENGINEERING	SIGNATURE/ BLOCK: 	PROJECT TITLE: SAFETY & TRAFFIC OPERATIONAL IMPROVEMENTS ON ROUTE 4 (FARMINGTON AVE) FROM GARDEN ST. TO MOUNTAIN SPRING RD.	TOWN: FARMINGTON	PROJECT NO. 51-260						
				CHECKED BY: RDD													
				SCALE AS NOTED													
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 7/9/2015		Filename: ...Temporary Precast Concrete Barrier Curb (15X32).dgn				DRAWING TITLE: TEMPORARY PRECAST BARRIER CURB (15"X32")		SHEET NO. 06.34					